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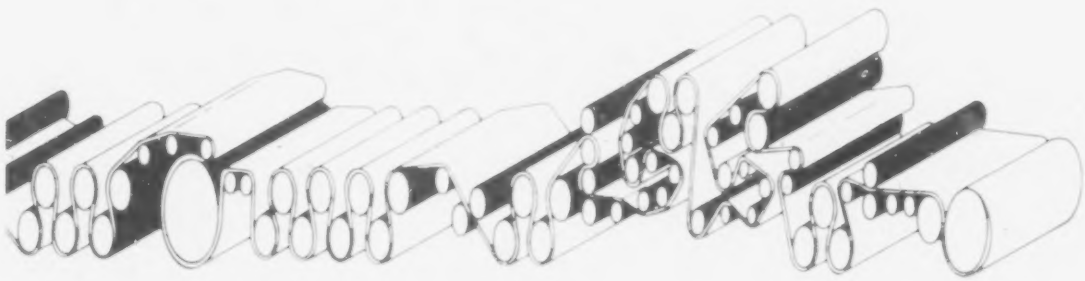
1992 STATISTICS OF PAPER PAPERBOARD & WOOD PULP

DATA THROUGH 1991



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New York, NY 10016

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FOREWORD

The American Paper Institute is pleased to present the thirtieth edition of its **Statistics of Paper, Paperboard and Wood Pulp.**

This report presents a comprehensive up-to-date statistical base of annual data on the Paper, Paperboard and Wood Pulp industries, together with additional information on the entire Paper and Allied Products industry group.

Data on paper, paperboard and wood pulp production, imports, exports, consumption, capacity and price indexes, by major grade. are supplemented with tables showing fibrous materials consumption, industry patterns of employment and wage rates, energy consumption and financial trends. Also included is an analysis of the demand for paper and paperboard, by major grade, relative to the real gross domestic product.

The tables are grouped into four functional sections: production and related data, regional data, input trends and financial information. Supplemental tables show production, imports, exports and new supply of wet machine board and construction paper and paperboard, as well as the import and export data used in analyzing demand for paper and paperboard, by grades.

Tabular information in this report is complemented by graphs illustrating changes in the growth and structure of the paper, paperboard and wood pulp industries.

Comments or suggestions for improvement of this report are welcomed, and should be directed to Dr. Benjamin Slatin, who is responsible for its preparation.

September 1992

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SECTION I

PRODUCTION AND RELATED DATA

Highlights of 1991

The paper industry turned in a strong performance in 1991 as production moved to its sixth consecutive high. In the face of a 1% decline in real gross domestic product (real GDP)paper output rose 1%, to 79,494,000 tons.

At 5.1% above its 1990 total, paperboard, supported by a 700,000-ton increase in production for export, showed most of the production gain. Production of packaging boxboard for domestic use advanced 5.4%, while containerboard for domestic use for fiber boxes held steady.

International trade offered major support to domestic producers: Census data indicated that exports of paper, paperboard, and products increased 1,524,000 tons -- 22.5% -- to 8,311,000 tons from 1990 to 1991. At the same time, domestic producers increased their share of the total U.S market, accounting for 85.5% of new supply (production plus imports less exports), compared to 84.7% in 1990, as imports declined by nearly one million tons, to 12,074,000 tons.

Domestic demand for paper and paperboard traced its usual pattern in a period of economic decline, by falling 2.0%, somewhat more than the decline in real GDP. Relative to 1989, however, paper and paperboard demand showed a slightly better performance than real GDP, off by 0.1%, compared to real GDP's fall of 0.4%.

Tables

The tables in this section present detailed data on production, imports, exports, new supply, capacity and value of shipments of paper and paperboard products, together with analyses of demand for paper and paperboard, by major grade, relative to real GDP. A table on wood pulp capacity is also included.

The import and export data for 1989 are not fully compatible with earlier data because of the Census Bureau's January 1989 shift to the International Harmonized Commodity Description and Coding System. Census further revised its exports system in 1990, by using Statistics Canada's imports from the United States as U.S. exports to Canada. The 1991 data are fully comparable to 1990's

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TABLE I

PAPER AND PAPERBOARD

(Includes Wet Machine Board and Construction Grades)

PRODUCTION, IMPORTS, EXPORTS AND NEW SUPPLY

1899 - 1991

YEAR	PRODUCTION	IMPORTS (Incl. Products)	EXPORTS (Incl. Products)	NEW SUPPLY*	POPULATION	PER CAPITA NEW SUPPLY	REAL GROSS DOMESTIC PRODUCT	NEW SUPPLY TO REAL GDP
	Thousand Short Tons				Millions	lbs.	Billions of 1987 $'s	000 Tons Per $ Billion
1899	2,168	--	--	2,168	74.9	57.9	--	--
1919	5,966	708	421	6,253	105.1	119.0	--	--
1929	11,140	2,534	262	13,412	121.8	220.2	841.8 E	15.93 E
1934	9,187	2,265	163	11,289	126.5	178.5	636.7 E	17.73 E
1939	13,510	2,687	249	15,948	131.0	243.5	850.1 E	18.76 E
1944	17,183	2,576	314	19,445	138.9	280.0	1,578.2 E	12.32 E
1949	20,098	4,752	367	24,483	149.7	327.1	1,315.6 E	18.61 E
1954	26,411	5,165	682	30,894	163.0	379.1	1,680.1 E	18.39 E
1959	33,748	5,517	906	38,359	177.8	431.4	1,931.3	19.86
1964	40,961	6,209	1,694	45,476	191.9	474.0	2,343.3	19.41
1965	43,455	6,585	1,770	48,270	194.3	496.9	2,473.5	19.51
1966	46,701	7,358	1,942	52,117	196.6	530.2	2,622.3	19.87
1967	46,568	6,952	2,085	51,435	198.7	517.7	2,390.3	21.52
1968	50,146	6,842	2,625	54,363	200.7	541.7	2,801.0	19.41
1969	52,927	7,258	2,749	57,436	202.7	566.7	2,877.1	19.96
1970	51,670	7,115	2,817	55,968	205.1	545.9	2,875.8	19.46
1971	53,162	7,406	3,118	57,450	207.7	553.3	2,956.1	19.43
1972	57,434	7,676	3,069	62,041	209.9	591.2	3,107.1	19.97
1973	59,900	8,131	3,027	65,004	211.9	613.5	3,268.6	19.89
1974	59,040	8,065	3,797	63,308	213.9	592.1	3,248.1	19.49
1975	50,976	6,253	3,116	54,113	216.0	501.1	3,221.7	16.80
1976	58,329	7,142	3,457	62,014	218.0	568.8	3,380.8	18.34
1977	60,040	7,432	3,230	64,243	220.2	583.4	3,533.3	18.18
1978	62,086	9,113	3,373	67,827	222.6	609.4	3,703.5	18.31
1979	64,345	9,123	3,672	69,796	225.1	620.3	3,796.8	18.38
1980	63,600	8,780	5,214	67,166	227.8	589.8	3,776.3	17.79
1981	64,259	8,339	4,641	67,957	230.1	590.6	3,843.1	17.68
1982 **	60,952	8,024	4,246	64,730	232.5	556.8	3,760.3	17.21
1983 **	66,749	8,986	4,569	71,166	234.8	606.2	3,906.6	18.22
1984 **	70,248	11,075	4,387	76,936	237.0	649.2	4,148.5	18.55
1985 **	68,683	11,522	4,071	76,133	238.5	638.4	4,279.8	17.79
1986 **	72,505	11,936	4,687	79,755	240.7	662.7	4,404.5	18.11
1987 **	75,949	12,837	5,304	83,482	242.8	687.6	4,540.0	18.39
1988 **	78,085	13,110	5,691	85,504	245.1	697.8	4,718.6	18.12
1989 **	78,355	13,100	6,300	85,155	247.3	688.6	4,838.0	17.60
1990 R**	80,344	13,148	6,796	86,696	250.0	693.6	4,877.5	17.77
1991 P**	81,064	12,167	8,331	84,900	252.6	672.1	4,821.0	17.61

SOURCE: Production: - 1899 - 1954 - Department of Commerce, Bureau of the Census.
Production - 1959-1991 - American Paper Institute. Imports and Exports - Department of Commerce, Bureau of Census.
Population - Department of Commerce, Bureau of Census. Real Gross Domestic Product - Department of Commerce, B. E. A.
E: Estimate. All calculations by American Paper Institute. P: Preliminary R: Revised

NOTE: Production, Imports and Exports, 1899 - 1944, include Hard Pressed Board.
Population data include Armed Forces overseas.

* New Supply = Production plus Imports less Exports; includes imports and exports of products.

** Includes API estimate for construction and wet machine board grades: 1982 - 1,662,000 tons;
1983 & 1984 - 1,800,000 tons; 1985 - 1,700,000 tons; 1986 - 1,600,000 tons; 1987 - 1,590,000 tons;
1988 - 1,500,000 tons; 1989 - 1,570,000 tons; 1990 - 1,570,000 tons; 1991 -1,570,000.

Chart 1

PAPER AND PAPERBOARD

(Incl. Wet Machine Board & Construction Grades)

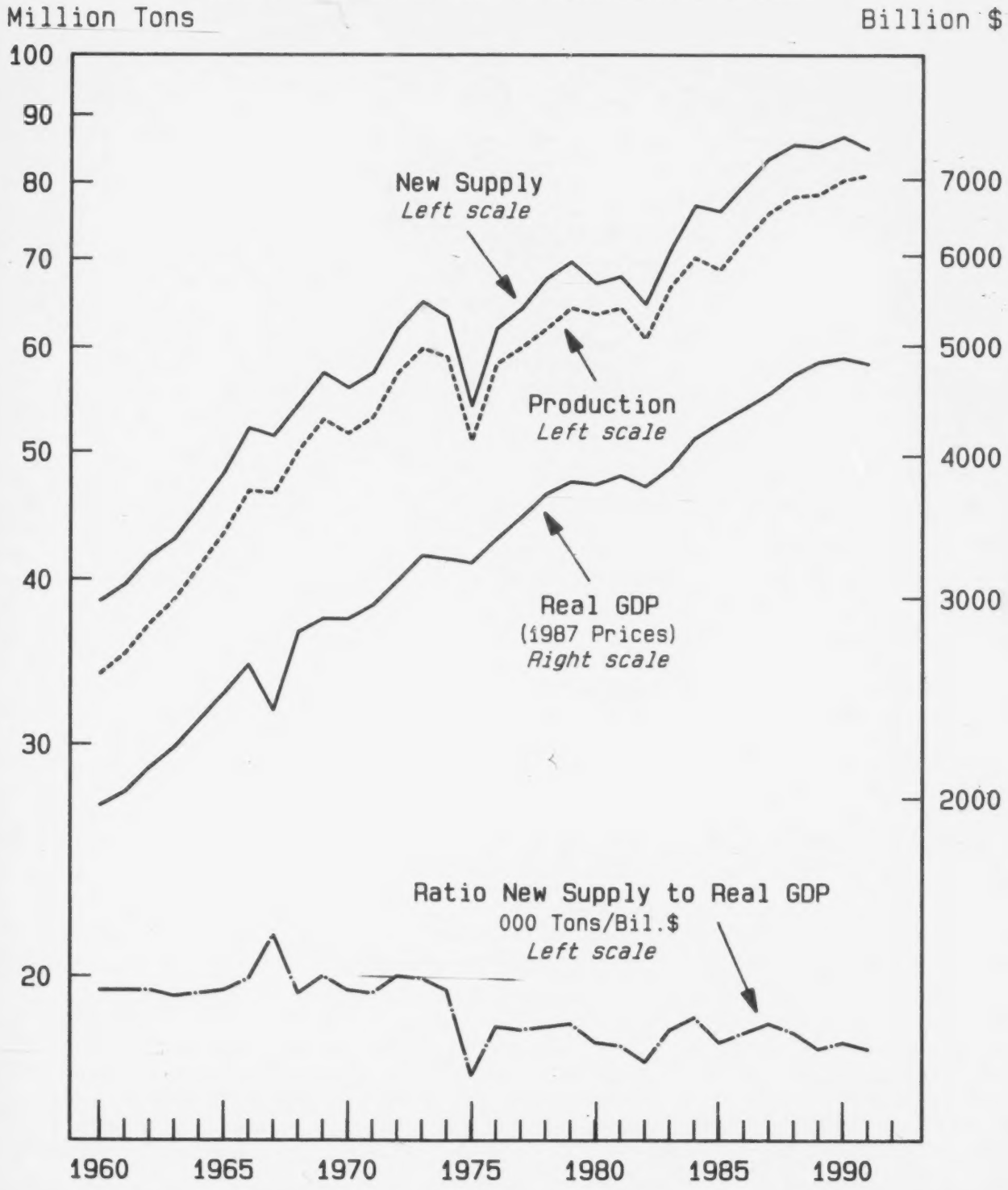


TABLE IA

PAPER AND PAPERBOARD

PRODUCTION, IMPORTS, EXPORTS AND NEW SUPPLY

1959 - 1991

YEAR	PRODUCTION	IMPORTS (Incl. Products)	EXPORTS (Incl. Products)	NEW SUPPLY*	POPULATION	PER CAPITA NEW SUPPLY	REAL GROSS DOMESTIC PRODUCT	RATIO OF NEW SUPPLY TO REAL GDP
	Thousand Short Tons				Millions	lbs.	Billions of 1987 $'s	000 Tons Per $ Billion
1959	30,997	5,484	874	35,607	177.8	400.5	1,931.3	18.44
1960	31,221	5,611	990	35,842	180.7	396.7	1,973.2	18.16
1961	32,548	5,663	1,174	37,037	183.7	403.2	2,025.6	18.28
1962	34,408	5,719	1,154	38,973	186.5	417.9	2,129.8	18.30
1963	35,913	5,637	1,302	40,248	189.2	425.5	2,218.0	18.15
1964	38,066	6,154	1,660	42,560	191.9	443.6	2,343.3	18.16
1965	40,489	6,545	1,737	45,297	194.3	466.3	2,473.5	18.31
1966	43,904	7,327	1,904	49,327	196.6	501.8	2,622.3	18.81
1967	43,745	6,917	2,054	48,608	198.7	489.3	2,690.3	18.07
1968	47,085	6,793	2,587	51,291	200.7	511.1	2,801.0	18.31
1969	49,824	7,209	2,703	54,330	202.7	536.1	2,877.1	18.88
1970	48,719	7,057	2,779	52,997	205.1	516.8	2,875.8	18.43
1971	49,741	7,319	3,076	53,984	207.7	519.8	2,965.1	18.21
1972	53,842	7,567	3,020	58,389	209.9	556.3	3,107.1	18.79
1973	56,346	8,019	2,966	61,399	211.9	579.5	3,268.6	18.78
1974	55,756	7,970	3,720	60,006	213.9	561.1	3,248.1	18.47
1975	47,997	6,164	3,050	51,111	216.0	473.2	3,221.7	15.86
1976	54,993	7,042	3,388	58,647	218.0	538.0	3,380.8	17.35
1977	56,656	7,294	3,171	60,779	220.2	551.9	3,533.2	17.20
1978	58,610	8,781	3,301	64,090	222.6	575.8	3,703.5	17.31
1979	61,070	8,738	3,610	66,198	225.1	588.2	3,796.8	17.44
1980	61,042	8,304	5,148	64,198	227.8	563.6	3,776.3	17.00
1981	62,109	7,941	4,561	65,489	230.1	569.2	3,843.1	17.04
1982	59,290	7,603	4,187	62,706	232.5	539.4	3,760.3	16.68
1983	64,949	8,509	4,502	68,956	234.8	587.4	3,906.6	17.65
1984	68,448	10,576	4,310	74,714	237.0	630.5	4,148.5	18.01
1985	66,983	11,105	4,003	74,085	238.5	621.3	4,279.8	17.31
1986	70,905	11,597	4,593	77,909	240.7	647.4	4,404.5	17.69
1987	74,359	12,528	5,197	81,690	242.8	672.8	4,540.0	17.99
1988	76,585	12,788	5,559	83,814	245.1	684.0	4,718.6	17.76
1989	76,785	12,910	6,264	83,431	247.3	674.6	4,838.0	17.24
1990 R	78,774	13,006	6,787	84,994	250.0	680.0	4,877.5	17.43
1991 P	79,494	12,074	8,311	83,257	252.6	659.1	4,821.0	17.27

SOURCE: See Table I.

NOTE: All data exclude wet machine board, building paper and insulating board.

* New Supply = Production plus Imports less Exports.

P: Preliminary R: Revised

Chart 2

PAPER AND PAPERBOARD

(Excl. Wet Machine Board & Construction Grades)

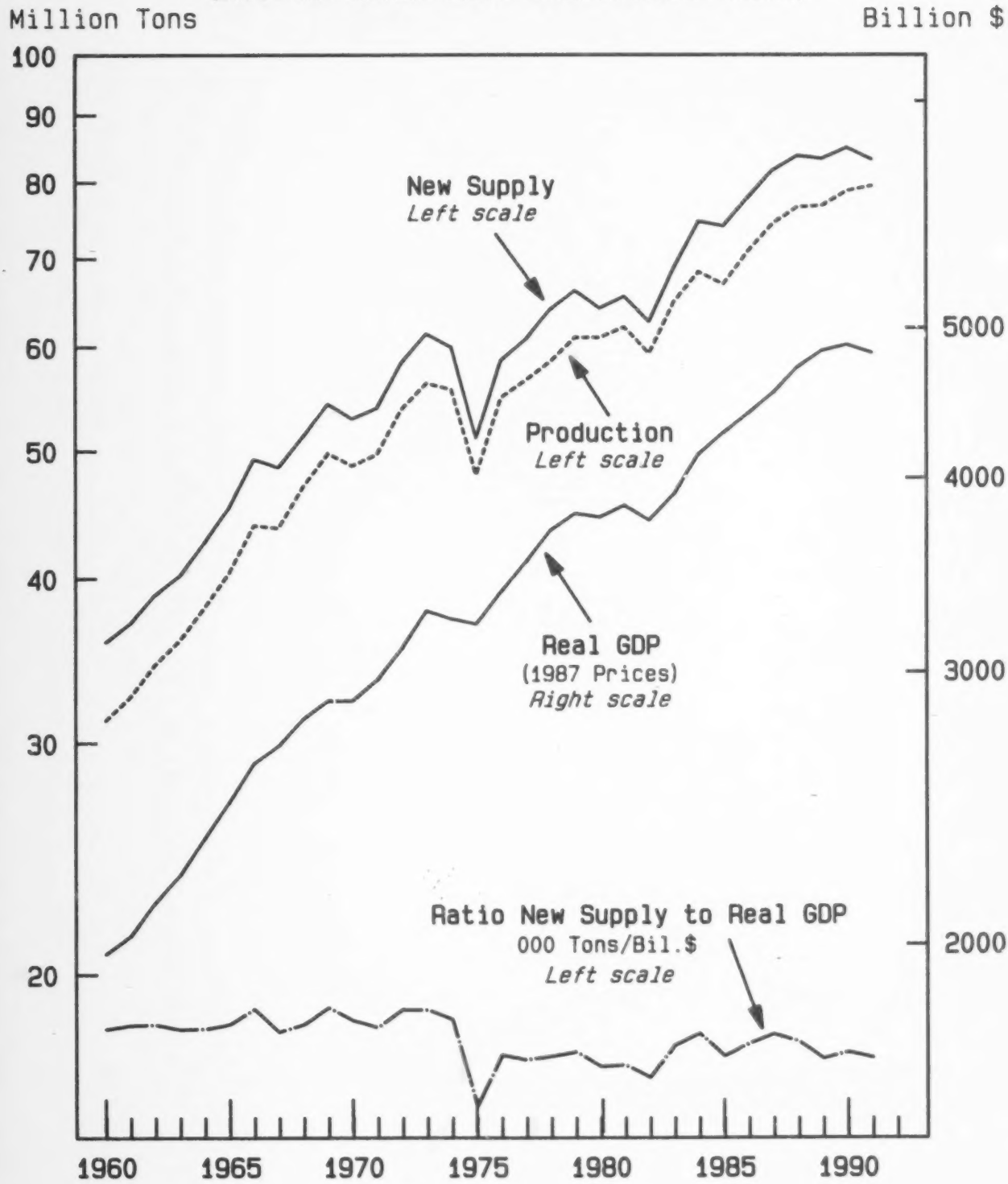


Chart 3

UNITED STATES PAPER PRODUCTION

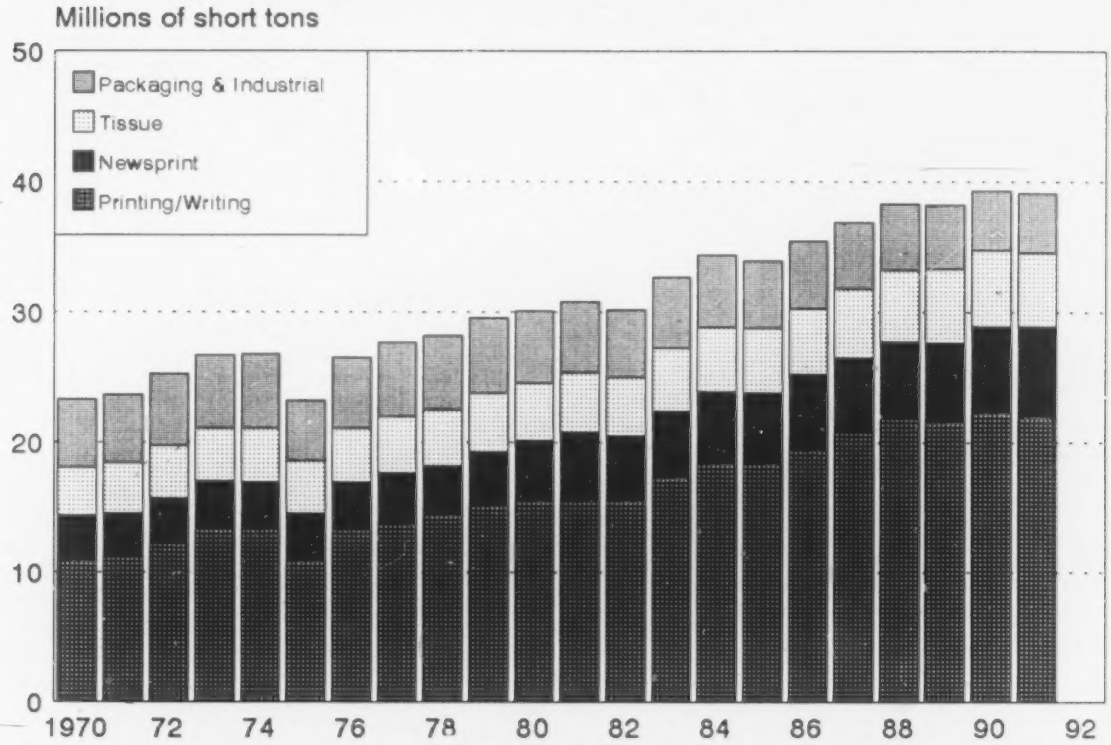


Chart 4

UNITED STATES PAPERBOARD PRODUCTION

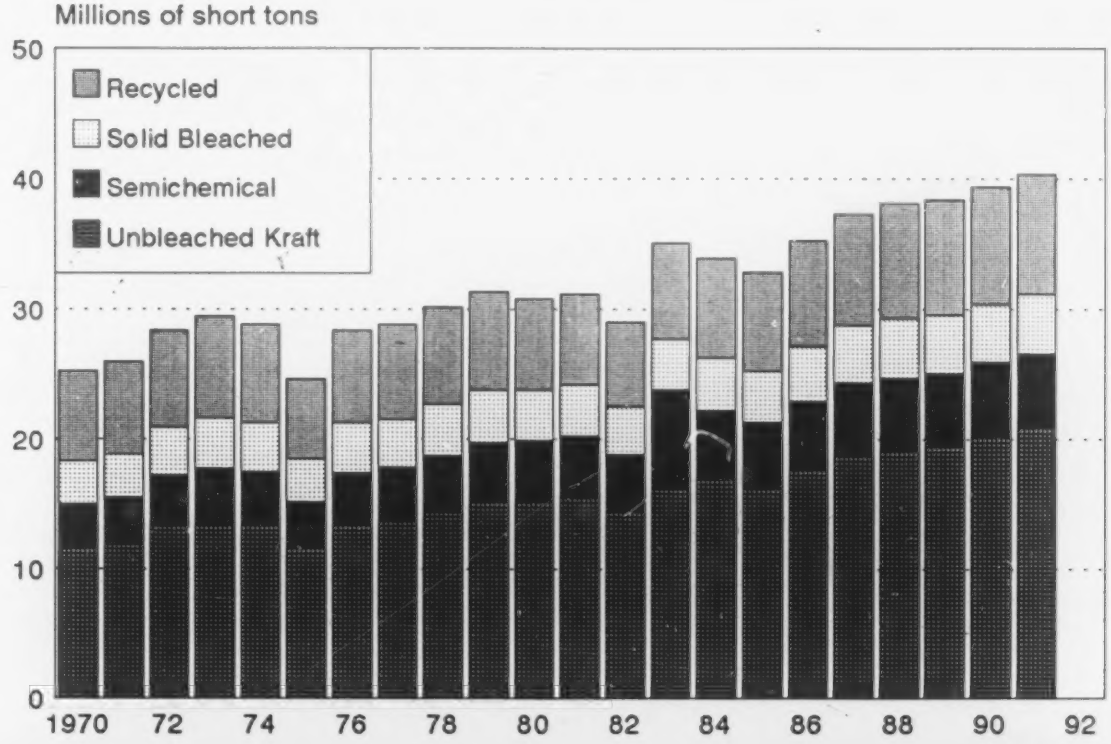


Chart 5

CHANGES IN THE STRUCTURE OF THE PAPER INDUSTRY

Percent of Total Paper Production

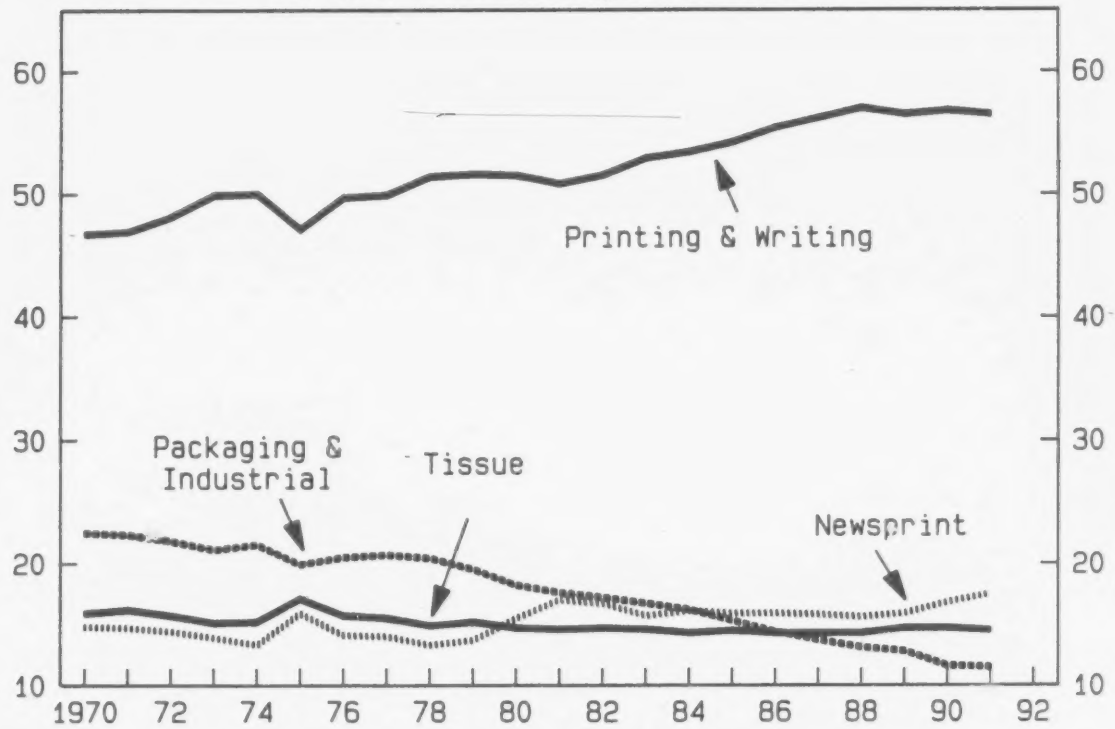


Chart 6

PERCENT OF U.S. NEWSPRINT CONSUMPTION PRODUCED IN THE U.S. AND CANADA

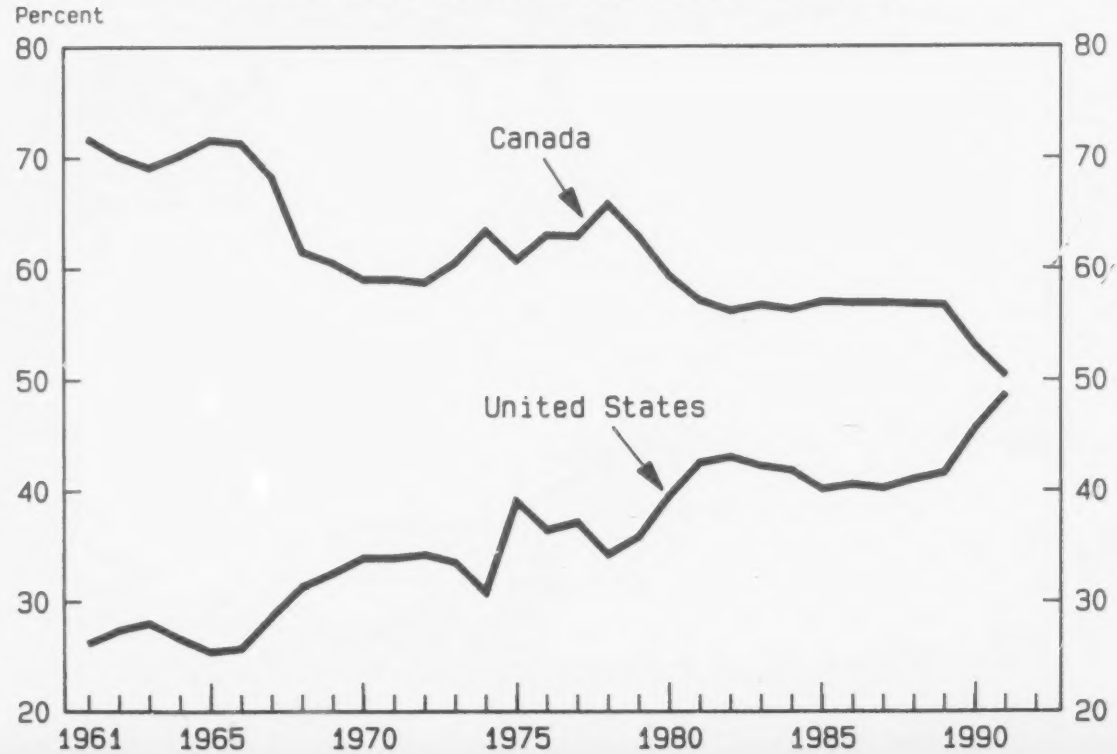


TABLE II

TOTAL PAPER SHIPMENTS

1964 – 1991

(Thousands of Tons)

	1964	1965	1966	1967	1968	1969	1970
TOTAL PAPER, ALL GRADES	18,111.7	19,157.0	20,724.9	20,925.6	22,181.1 RS	23,448.7	23,351.2
Newsprint Production	2,261.0	2,245.0	2,483.0	2,709.0	3,045.0	3,382.0	3,464.0
Total Printing–Writing Papers	8,667.9	9,337.5	10,318.4	10,121.9	10,481.5	11,139.1	10,903.9
Uncoated Groundwood	995.4	974.0	1,088.3	1,019.6	1,090.3	1,094.9	1,084.6
Publishing and Printing	837.2	814.0	876.4	806.4	883.3	914.0	924.4
Converting	158.2	160.0	211.9	213.2	207.0	180.9	160.2
Coated Papers	2,608.3	2,814.2	3,087.6	3,086.4	3,100.5 RS	3,306.4	3,239.2
Uncoated Free Sheet Papers	3,847.5	4,216.0	4,691.9	4,577.0	4,787.7	5,182.9	5,090.4
Bond and Writing	499.2	555.9	620.8	613.9	627.1	718.0	698.6
Form Bond	420.0	490.0	575.0	600.0	570.9	688.7	722.1
Ledger	43.0	46.6	49.1	47.5	54.6	51.1	48.2
Mimeograph	116.5	117.3	125.4	122.7	134.9	132.6	128.4
Duplicating	117.3	125.6	134.9	141.9	160.9	172.5	165.6
Manifold	15.5	19.9	20.2	17.2	14.0	11.0	9.8
Papeterie and Wedding	45.2	45.5	51.7	51.7	56.0	59.9	53.9
Carbonless	N.A.	N.A.	N.A.	N.A.	50.0	65.0	80.0
Opaque Circular	20.6	22.9	23.8	24.6	23.3	25.0	23.6
Other	261.0	302.2	330.3	344.7	N.A.	N.A.	N.A.
Cover and Text Papers	168.1	186.0	194.1	192.2	192.8	200.1	193.2
M.F., E.F. & Super Calendered	240.1	219.3	228.2	209.9	198.2	214.3	162.1
Offset	948.5	1,062.4	1,221.9	1,165.3	1,295.4	1,381.5	1,384.0
White Wove Envelope	357.3	392.4	412.8	423.0	459.6	461.2	466.1
Tablet	293.7	304.4	346.3	294.6	313.0	320.9	342.4
Kraft Envelope Papers: Total	172.0	194.0	203.7	188.5	186.6	208.8	189.6
Brown Kraft – Estimated	80.0	67.0 E	68.1 E	92.9 E	91.4 E	102.9	95.7
Bleached Kraft – Estimated	92.0	127.0 E	135.6 E	95.6 E	95.2 E	105.9	93.9
Other	129.5	131.6	153.7	139.3	450.4	472.3	424.8
Thin Papers	192.7	211.3	245.4	238.0	261.6	289.0	287.9
Cotton Fiber Papers	117.8	122.3	126.3	124.8	124.0	128.1	115.4
Bond and Writing	72.1	74.8	78.7	74.8	80.5	85.3	76.5
Other Business	28.0	29.0	28.8	30.1	25.2	24.7	23.4
Technical and Other	17.7	18.5	18.8	19.9	18.3	18.1	15.5
Bleached Bristols	906.2	999.7	1,078.9	1,076.1	1,117.4	1,137.8	1,086.4
Tabulating Index	419.4	478.6	514.4	533.2	534.6	558.7	499.6
Tag	171.5	194.9	196.9	187.4	203.7	193.5	184.3
File Folder	59.6	64.0	71.4	71.0	77.8	76.5	72.0
Index Bristol	97.4	100.6	115.0	105.5	104.4	100.4	102.3
Printing Bristol	22.4	23.4	26.5	24.6	24.0	28.4	32.0
Postcard	10.4	8.8	10.3	8.5	5.2	6.8	6.7
Coated Bristol	125.5	129.4	144.4	145.9	167.7	173.5	189.5
Total Packaging and Industrial Papers	4,436.1	4,683.9	4,823.7	4,865.7	5,198.8	5,336.7	5,264.8
Kraft, Glassine, Greaseproof & Veg. Parchment	4,091.7	4,319.1	4,430.1	4,479.2	4,753.0	4,861.7	4,809.7
Unbleached Kraft Papers	3,098.4	3,293.1	3,414.4	3,391.9	3,602.5	3,670.2	3,672.4
Wrapping	352.2	358.9	370.0	334.7	353.5	327.7	296.4
Bag and Sack (Exc. Shipping Sack)	1,328.2	1,447.7	1,548.1	1,631.3	1,713.0	1,797.9	1,927.4
Shipping Sack	865.9	894.9	884.7	902.5	978.8	983.5	953.3
Other Converting	554.1	591.6	611.6	523.4	557.2	561.1	495.3
Bleached Packaging Papers (C)	797.4	825.4	801.1	891.2	942.8	975.1	934.0
Wrapping	191.7	207.4	208.4	217.7	210.5	229.3	219.6
Bag and Sack (Exc. Shipping Sack)	138.5	163.1	171.6	185.5	207.6	227.3	218.6
Shipping Sack	75.2	72.0	73.[illegible]	89.1	88.7	99.8	97.9
Other Converting	392.0	382.9	347.4	398.9	435.8	418.7	397.9
Glassine, Greprf. and Veg. Parch. (C)	195.9	200.6	214.6	196.1	207.7	216.4	203.3
Special Industrial Papers (C)	344.4	364.8	393.6	386.5	445.8	475.0	455.1
Total Tissue Papers (C)	2,746.7	2,890.6	3,099.8	3,229.0	3,455.8	3,610.9	3,718.5
Total Sanitary Tissue Stock	2,515.7	2,651.4	2,847.5	2,976.9	3,217.1	3,368.7	3,494.0
Toilet Tissue	1,107.2	1,120.9	1,169.9	1,171.0	1,273.1	1,274.7	1,323.1
Facial Tissue Stock	327.4	327.2	337.5	349.1	349.8	386.4	365.0
Napkin Stock	266.1	287.3	332.8	347.3	374.7	377.8	381.2
Towelling*	723.1	816.4	897.7	987.8	1,077.7	1,136.9	1,168.1
Wiper Stock*	38.4	40.1	49.1	48.9	50.3	58.8	55.8
Other Sanitary Tissue*	53.5	59.5	60.5	72.8	91.5	134.1	200.8
Total All Other Tissue	231.0	239.2	252.3	252.1	238.7	242.2	224.5

SOURCE: AMERICAN PAPER INSTITUTE C – Current Industrial Reports, Pulp, Paper and Board, Census * Revised by API E – Est. RS Rev. Series

TABLE II (Cont.)

TOTAL PAPER SHIPMENTS

1964 – 1991

(Thousands of Tons)

	1971	1972	1973	1974		1975	1976	1977
TOTAL PAPER, ALL GRADES	23,722.2	25,358.5	26,797.3	26,862.7		23,260.3	26,577.4	27,754.3
Newsprint Production	3,476.0	3,656.0	3,738.0	3,561.0	#	3,691.0	3,735.9	3,870.5
Total Printing–Writing Papers	11,132.1	12,194.5	13,371.2	13,431.4		10,965.6	13,207.3	13,868.6
Uncoated Groundwood	1,089.2	1,126.0	1,180.9	1,192.4		1,127.2	1,320.6	1,359.7
Publishing and Printing	929.0	950.9	985.1	1,001.8		947.5	1,066.5	1,082.4
Converting	160.2	175.1	195.8	190.6		179.7	254.1	277.3
Coated Papers	3,191.9	3,483.2	3,779.1	3,775.8		3,155.4	3,933.1	4,210.3
Uncoated Free Sheet Papers	5,350.9	5,953.2	6,673.6	6,755.3		5,328.3	6,452.8	6,781.5
Bond and Writing	761.5	889.6	1,075.0	1,332.6		1,017.3	1,278.9	1,353.5
Form Bond	787.1	913.0	1,119.9	1,161.5		950.1	1,164.4	1,208.3
Ledger	51.5	53.9	62.0	71.0		51.2	57.8	(
Mimeograph	125.5	128.2	143.3	128.8		96.2	100.8	(161.4
Manifold	10.7	11.8	12.7	11.7		9.0	12.0	(
Duplicating	162.9	171.4	182.4	178.4		123.6	136.0	147.0
Papeterie and Wedding	51.9	51.1	57.3	47.3		34.2	47.5	43.6
Carbonless	90.0	105.0	120.0	160.0		140.0	190.0	225.0
Opaque Circular	24.5	26.2	33.6	38.1		26.6	32.8	32.7
Cover and Text Papers	181.0	194.4	219.5	213.1		156.2	175.3	189.1
M.F., E.F. & Super Calendered	147.6	128.6	154.6	128.1		66.5	69.3	66.1
Offset	1,467.9	1,688.0	1,862.5	1,838.7		1,462.5	1,781.4	1,889.5
White Wove Envelope	467.6	527.0	570.9	530.6		456.6	519.9	554.4
Tablet	401.3	396.5	305.5	167.5		229.3	299.6	285.4
Kraft Envelope Papers: Total	176.9	189.5	214.0	203.1		163.8	204.0	203.3
Brown Kraft – Estimated	93.7	93.2	106.7	96.3		83.4	101.4	101.1
Bleached Kraft – Estimated	83.2	96.3	107.3	104.8		80.4	102.6	102.2
Other	443.0	479.0	540.4	544.8		345.2	383.1	422.2
Thin Papers	292.3	333.2	358.2	371.8		310.8	348.4	338.7
Cotton Fiber Papers	112.8	119.1	123.7	117.0		94.5	104.2	108.5
Bond and Writing	75.7	81.1	85.5	82.2		67.6	75.8	80.2
Other Business	21.1	22.2	22.8	20.8		16.3	15.8	15.6
Technical and Other	16.0	15.8	15.4	14.0		10.6	12.6	12.7
Bleached Bristols	1,095.0	1,179.8	1,255.7	1,219.1		949.4	1,048.2	1,089.9
Tabulating Index	458.3	465.0	491.2	498.6		372.7	334.3	338.0
Tag	193.5	217.1	220.3	140.1		132.3	177.6	177.1
File Folder	80.9	88.3	87.1	66.9		86.0	92.0	99.3
Index Bristol	106.1	120.9	130.9	181.0		119.0	140.8	135.6
Printing Bristol	32.9	39.2	46.9	52.5		37.9	43.0	46.4
Postcard	6.7	5.7	3.1	0.2		1.3	1.4	1.3
Coated Bristol	216.6	243.6	270.2	279.8		200.2	259.1	272.2
Total Packaging and Industrial Papers	5,281.4	5,531.3	5,649.3	5,783.9		4,624.1	5,450.6	5,729.6
Kraft, Glassine, Greaseproof & Veg. Parchment	4,807.1	4,986.5	4,999.2	5,132.8		4,136.4	4,824.0	5,151.2
Unbleached Kraft Papers	3,649.2	3,810.9	3,901.6	4,033.5	RS	3,253.7	3,788.1	3,805.6
Wrapping	280.3	282.5	272.3	175.3	RS	139.1	150.0	156.4
Bag and Sack (Exc. Shipping Sack)	1,929.3	2,014.5	2,006.2	2,130.5	RS	1,924.6	2,106.2	2,099.7
Shipping Sack	930.4	935.7	1,025.8	1,187.2	RS	838.4	1,004.2	1,035.0
Other Converting	509.2	578.2	597.3	540.5	RS	351.6	527.7	514.5
Bleached Packaging Papers (Census)	952.1	941.6	867.1	858.6		693.5	828.7	1,127.0 ❷
Wrapping	205.7	204.0	158.1	143.1		115.3	126.4	136.1
Bag and Sack (Exc. Shipping Sack)	234.7	240.8	254.2	245.2		227.8	273.9	304.1
Shipping Sack	101.9	105.1	104.4	130.2		95.3	127.6	106.8
Other Converting 1/	409.8	391.7	350.4	340.1		255.1	300.8	580.0
Glassine, Grsprf. and Veg. Parch. (Census)	205.8	234.0	230.5	240.5		191.2	207.2	218.6
Special Industrial Papers (Census)	474.3	544.8	650.1	651.3	RS	485.7	626.6	578.4
Total Tissue Papers (Census)	3,832.7	3,976.7	4,038.8	4,086.4	RS	3,979.6	4,183.6	4,285.6
Total Sanitary Tissue Stock	3,604.4	3,746.2	3,771.8	3,823.2	RS	3,772.1	3,954.7	4,069.6
Toilet Tissue	1,378.2	1,398.7	1,440.5	1,466.1	RS	1,520.1	1,608.9	1,660.2
Facial Tissue Stock	341.1	367.2	361.8	356.9	RS	339.8	335.1	336.0
Napkin Stock	394.7	419.3	447.7	442.5	RS	462.1	455.2	491.9
Towelling*	1,183.7	1,249.4	1,276.4	1,333.2	RS	1,248.5	1,323.2	1,353.4
Wiper Stock*	54.9	59.4	61.3	45.3	RS	37.0	46.4	43.8
Other Sanitary Tissue*	253.8	252.2	184.1	179.2	RS	164.6	185.9	184.3
Total All Other Tissue	228.3	230.5	267.0	263.2	RS	207.5	228.9	216.0

E – Estimated. 1/ Excludes Bleached Kraft Envelope Paper. RS – Revised series using API data. # – Basis weight change from 32 lb. to 30 lb.

Note (Census): Current Industrial Reports, Pulp, Paper and Board. ❷ – Data overstated by about 10% based on 1980 revision of 1979 data.

TABLE II (Cont.)

TOTAL PAPER SHIPMENTS

1964 – 1991

(Thousands of Tons)

	1978	1979	1980	1981	1982	1983	1984
TOTAL PAPER, ALL GRADES	28,319.5	29,666.2	30,116.3	30,900.8	30,245.0	32,803.0	34,446.4
Newsprint Production	3,767.5	4,061.9	4,672.3	5,238.6	5,041.2	5,167.0	5,538.8
Total Printing–Writing Papers 6/	14,548.7	15,297.4	15,522.0	15,694.3	15,574.9	17,364.7	18,420.0
Uncoated Groundwood	1,354.4	1,509.0	1,498.8	1,471.1	1,470.8	1,530.8	1,565.3
Publishing and Printing	1,061.0	1,186.0	1,178.2	1,113.1	1,123.1	1,187.9	1,252.2
Converting	293.4	323.0	320.6	358.0	347.7	342.9	313.1
Coated Papers	4,399.9	4,472.3	4,621.6	4,892.7	4,991.0	5,715.8	6,248.9
Coated Groundwood	N.A.	N.A.	2,664.7	2,778.8	2,950.2	3,340.6	3,650.1
Coated Free Sheet	N.A.	N.A.	1,956.9	2,113.9	2,040.8	2,375.2	2,598.8
Uncoated Free Sheet Papers 6/	7,202.0	7,817.1	7,984.2	7,867.4	7,809.3	8,725.7	9,152.0
Bond and Writing	1,424.7	1,578.3	1,789.7	1,694.0	1,768.5	2,057.3	2,114.8
Form Bond	1,330.5	1,449.3	1,491.6	1,580.3	1,510.4	1,687.5	1,829.4
Ledger, Mimeograph and Manifold	161.7	154.4	151.1	129.4	105.0	110.2	100.5
Duplicating	149.5	153.3	173.6	147.6	139.8	132.1	117.4
Papeterie and Wedding	49.2	56.4	46.2	45.6	42.0	38.7	42.8
Carbonless	250.0	300.0	338.8	375.2	378.7	400.0	443.4
Cover and Text Papers	212.1	243.1	238.2	243.0	235.1	276.0	299.2
M.F., E.F. & Super Calendered	69.5	85.9	78.7	77.3	68.7	87.5	79.2
Offset	1,920.2	2,155.2	2,071.2	2,018.5	2,017.6	2,209.8	2,398.4
White Wove Envelope	592.3	634.9	649.9	638.3	638.7	715.1	773.7
Tablet	350.4	320.1	323.1	316.9	345.3	406.1	299.2
Kraft Envelope Papers: Total	230.2	234.4	226.2	221.5	207.8	230.7	237.4
Brown Kraft – Estimated	121.1	115.6	111.7	111.0	102.2	114.2	113.8
Bleached Kraft – Estimated	109.1	118.8	114.5	110.5	105.6	116.5	123.6
Other	461.7	451.8	405.9	379.8	351.7	374.7	418.6
Thin Papers	351.7	371.4	333.0	353.4	297.0	292.4	303.4
Cotton Fiber Papers	114.4	124.6	126.3	125.6	120.2	132.7	147.2
Bond and Writing	84.4	93.1	95.2	95.3	94.8	105.9	119.4
Other Business	16.3	16.6	14.1	13.7	11.0	10.6	8.8
Technical and Other	13.7	14.9	17.0	16.6	14.4	16.2	19.0
Bleached Bristols	1,126.3	1,003.0	958.1	984.1	886.6	967.3	1,003.2
Tabulating Index	310.6	217.0	202.3	152.8	123.2	106.7	67.6
Tag	207.7	208.7	177.7	194.3	168.9	190.9	196.7
File Folder	112.3	127.6	114.0	127.0	121.1	144.8	140.9
Index Bristol	143.4	137.9	147.0	143.4	133.4	140.9	146.5
Printing Bristol	51.3	53.0	52.1	51.1	49.6	55.4	56.6
Postcard	0.6	0.2	0.4	1.4	2.4	1.9	2.8
Coated Bristol	300.4	258.6	264.6	314.1	288.0	326.7	392.1
Total Packaging and Industrial Papers	5,788.6	5,786.4	5,483.5	5,450.4	5,190.6	5,482.7	5,567.0
Kraft, Glassine, Greaseproof & Veg. Parchment	5,237.6	5,196.8	4,961.0	4,396.8 2/R	4,234.0	4,442.5	4,474.7
Unbleached Kraft Papers	3,863.4	3,931.0	3,815.8	3,569.1 RS	3,412.5	3,505.4 3/	3,519.5
Wrapping	156.3	149.6	115.7	99.1 RS	86.3	93.2	90.5
Bag and Sack (Exc. Shipping Sack)	2,224.5	2,225.8	2,269.4	2,207.9 RS	2,209.7	2,287.5	2,290.9
Shipping Sack	990.3	1,085.8	1,033.3	1,014.6 2/	895.1	878.9	883.3
Other Converting	492.3	469.8	397.4	247.5 RS	221.4	245.8	254.8
Bleached Packaging Papers (Census)	1,115.2 @	1,031.9	943.5	375.8 RS	381.6	429.3	454.2
Wrapping	154.2	118.9	102.6	33.1 2/R	31.3	31.1	26.9
Bag and Sack (Exc. Shipping Sack)	276.7	250.4	228.6	212.0 2/R	217.5	235.6	254.2
Shipping Sack	91.6	102.4	92.0	73.9 2/	77.9	88.5	90.1
Other Converting 1/	592.7	560.2	520.3	56.7 RS	54.9	74.1	83.0
Glassine, Grsprf. and Veg. Parch. (Census)	259.0	233.9	201.7	451.9 #	439.9 #	507.8	501.0
Special Industrial Papers (Census) 6/	551.0	589.6	522.5	1,053.6 RS	956.6	1,040.2	1,092.3
Total Tissue Papers	4,214.7	4,520.5	4,438.5	4,517.5	4,437.6	4,788.6	4,920.6
Total Sanitary Tissue Stock	4,017.3	4,324.5	4,284.6	4,366.8	4,289.3	4,611.2	4,760.6
Toilet Tissue	1,643.2	1,742.4	1,685.0	1,714.0	1,748.2	1,835.2	1,851.6
Facial Tissue Stock	329.0	357.9	360.4	369.4	359.3	389.3	378.5
Napkin Stock	493.1	537.2	561.8	577.6	606.1	532.6	569.3
Towelling*	1,317.6	1,404.0	1,392.4	1,415.3	1,334.1	1,577.2	1,670.8
Wiper Stock*	44.8	58.8	58.0	77.5	50.8	N.A.	N.A.
Other Sanitary Tissue*	189.6	224.2	227.0	213.0	190.8	276.9	289.9
Total All Other Tissue	197.4	196.0	153.9	150.7	148.3	177.4	160.0

NOTE (Census): Current Industrial Reports, Pulp, Paper and Board RS – Revised Series @ Data overstated by about 10% based on 1980 revision of – 1979 data. 1/ Excludes Bleached Kraft Envelope Paper 2/ API data 6/ Series revised from 1968 to present. # Specialty Packaging NA – Not Available 3/ Data after 1983 may not be fully comparable due to changes in procedures in calculating the total industry shipments.

TABLE II (Cont'd.)

TOTAL PAPER SHIPMENTS

1984–1991

(Thousands of Tons)

	1985	1986	1987	1988	1989		1990 R	1991 P	
TOTAL PAPER, ALL GRADES	34,060.9	35,550.0	36,916.8	38,352.4	38,266.2		39,359.2	39,078.0	
Newsprint Production	5,427.7	5,630.0	5,842.0	5,982.0	6,088.0		6,610.1	6,840.7	
Total Printing–Writing Papers	18,463.0	19,678.0	20,800.0	21,860.0	21,624.7		22,370.4	22,063.5	
Uncoated Groundwood	1,520.9	1,539.6	1,498.2	1,623.6	1,742.7		1,805.8	1,716.0	
Publishing and Printing	1,229.8	1,212.9	1,197.7	1,373.7	553.8	NS1	591.3	570.9	
Converting	291.1	326.7	300.5	249.9	1,188.9	NS2	1,214.5	1,145.1	
Coated Papers	5,875.1	6,262.7	6,859.6	7,359.0	7,215.4		7,535.9	7,358.3	
Coated Groundwood	3,393.4	3,506.5	3,811.1	4,204.2	4,058.7		4,233.2	4,039.7	
Coated Free Sheet	2,481.7	2,756.2	3,048.5	3,154.8	3,156.7		3,302.7	3,318.6	
Uncoated Free Sheet Papers	9,689.9	10,409.5	10,965.8	11,277.0	11,080.7		11,503.2	11,504.3	
Bond and Writing	2,288.5	2,496.9	2,766.1	2,953.1	2,981.3		3,154.2	3,403.9	NS3
Form Bond	1,921.8	2,150.6	2,157.4	2,127.3	2,112.2		2,030.1	2,111.3	
Ledger, Mimeograph and Manifold	96.4	97.9	87.4	71.1	78.1		69.8	51.9	NS3
Duplicating	101.9	78.4	81.3	45.0	35.3		25.0	N.A.	NS3
Papeterie and Wedding	41.4	43.1	40.5	39.8	45.5		57.5	56.3	
Carbonless 3/	495.8	541.3	599.2	684.4	701.7		734.8	675.9	
Cover and Text Papers	288.9	310.0	329.1	348.6	441.8	NC	466.3	430.0	
M.F., E.F. & Super Calendered	77.4	83.5	74.5	86.0	83.1		95.4	78.9	
Offset	2,469.1	2,633.6	2,818.5	2,917.9	2,627.6	NC	2,756.8	2,634.2	
White Wove Envelope	789.3	867.1	916.2	942.5	923.1		992.7	941.1	
Tablet	443.2	411.5	424.5	378.6	387.2		400.9	439.9	
Kraft Envelope Papers: Total	234.7	254.1	255.9	268.9	233.9		249.3	218.4	
Brown Kraft – Estimated	125.4	132.5	131.8	144.3	127.8		136.7	116.7	
Bleached Kraft – Estimated	109.3	121.6	124.1	124.6	106.1		112.6	101.7	
Other	441.5	441.5	435.2	413.8	449.9		470.3	462.5	
Thin Papers	263.0	270.7	262.0	281.0	282.0		217.7	196.7	
Cotton Fiber Papers	144.1	152.0	162.8	169.3	160.8		155.4	142.4	
Bond and Writing	117.4	125.4	136.1	140.2	131.1		129.9	120.2	
Other Business	8.7	7.2	7.3	7.4	6.5		4.7	4.7	
Technical and Other	18.0	19.4	19.4	21.7	23.2		20.7	17.5	
Bleached Bristols	970.0	1,043.5	1,051.6	1,150.1	1,163.1		1,152.5	1,145.8	
Tabulating Index	70.0	60.0	50.0	40.0	35.0		30.9	23.3	
Tag	177.8	186.6	184.1	185.7	175.2		155.8	162.1	
File Folder	165.8	179.8	194.2	213.5	221.1		221.5	214.9	
Index Bristol	146.5	147.7	144.2	152.7	145.6		141.0	125.0	
Printing Bristol	57.4	59.7	62.6	67.4	67.1		70.2	70.7	
Postcard	3.2	5.8	5.4	3.2	5.3		6.1	17.4	
Coated Bristol	349.3	403.9	411.1	487.6	513.8		527.1	532.4	
Total Packaging and Industrial Papers	5,229.7	5,147.4	4,973.9	5,034.3	4,917.0		4,576.3	4,505.2	
Kraft, Glassine, Greaseproof & Veg. Parchment	4,187.2	4,061.3	3,791.8	3,823.2	3,669.4		3,423.6	3,333.3	
Unbleached Kraft Papers	3,246.1	3,115.5	2,839.8	2,801.0	2,682.1		2,376.5	2,275.5	
Wrapping	86.0	89.0	79.9	83.3	97.3		75.3	56.0	
Bag and Sack (Exc. Shipping Sack)	2,115.3	2,048.4	1,763.6	1,684.6	1,658.5		1,358.3	1,318.2	
Shipping Sack	796.8	747.4	784.3	840.4	772.2		770.0	735.2	
Other Converting	248.0	230.7	212.0	192.7	154.1		173.1	166.1	
Bleached Packaging Papers	436.8	435.6	406.7	465.2	467.7		483.7	420.7	
Wrapping	21.5	16.1	16.0	24.1	28.2		41.2	21.7	
Bag and Sack (Exc. Shipping Sack)	261.5	259.2	237.9	261.5	255.8		230.2	173.7	
Shipping Sack	80.1	84.4	98.3	110.7	101.9		111.9	100.2	
Other Converting 1/	73.7	75.9	54.5	68.9	81.8		100.4	125.1	
Specialty Packaging	504.3	510.2	545.3	557.0	519.6		563.4	637.1	
Special Industrial Papers RS	1,042.5	1,086.1	1,182.1	1,211.1	1,247.6		1,152.6	1,171.9	
Total Tissue Papers	4,940.5	5,094.6	5,300.9	5,476.1	5,636.5		5,802.4	5,668.6	
Total Sanitary Tissue Stock	4,797.5	4,943.6	5,137.2	5,282.4	5,442.2		5,627.6	5,528.5	
Toilet Tissue	1,882.4	1,905.6	1,930.0	2,032.3	2,151.7		2,278.0	2,343.4	
Facial Tissue Stock	353.8	359.1	345.2	351.4	353.6		344.3	345.5	
Napkin Stock	579.0	613.7	668.4	697.4	693.3		692.0	745.9	
Towelling	1,700.4	1,768.1	1,850.2	1,883.3	1,901.9		1,986.5	1,826.9	
Wiper Stock	N.A.	N.A.	N.A.	N.A.	N.A.		N.A.	N.A.	
Other Sanitary Tissue	281.9	297.1	343.4	338.0	341.7		326.7	266.8	
Total All Other Tissue	143.0	151.0	163.7	193.7	194.3		174.8	140.2	

1/ Excludes Bleached Kraft Envelope Paper 2/ API data series RS – Revised Series P – Preliminary NA – Not Available 3/ Includes base stock.
NS1–New Series 1989–Supercalendered (1988–464.7). NS2–New Series 1989–Other (1988–1,158.9). NC–Not Comparable to earlier data due to grade changes.
NS3–Mimeo and Duplicating included in Bond and Writing

TABLE III

PAPERBOARD PRODUCTION 1955-1991

BY END USE

THOUSAND TONS	PAPERBOARD	CONTAINERBOARD-DOMESTIC USE			
YEAR	TOTAL	Total	Linerboard	Corrugating Material	Chip and Filler Boards
1955	14,043.7	7,244.2	4,789.6	2,165.4	289.2
1956	14,371.6	7,451.3	4,933.4	2,249.5	268.4
1957	14,181.9	7,337.2	4,869.7	2,215.6	251.9
1958	14,237.0	7,259.2	4,818.9	2,191.3	249.0
1959	15,972.0	8,232.0	5,475.4	2,498.8	257.8
1960	15,926.5	8,186.6	5,474.8	2,461.0	250.8
1961	16,727.3	8,661.3	5,753.9	2,649.3	258.1
1962	17,847.4	9,299.0	6,216.5	2,822.1	260.4
1963	18,593.6	9,638.3	6,414.0	2,961.8	262.5
1964	19,953.8	10,341.9	6,907.5	3,165.1	269.3
1965	21,331.5	11,199.1	7,480.6	3,438.2	280.3
1966	23,178.6	12,459.6	8,347.3	3,799.8	312.5
1967	22,819.3	12,248.6	8,215.6	3,743.5	289.5
1968	24,903.6	13,388.4	9,043.7	4,061.9	282.8
1969	26,375.7	14,396.4	9,692.5	4,395.4	308.6
1970 RS	25,367.5	13,756.6	9,403.1	4,264.0	89.5 *
1971	26,019.1	14,125.5	9,530.8	4,519.7	75.0
1972	28,483.3	15,772.3	10,856.5	4,846.6	69.2
1973	29,548.9	16,689.7	11,355.8	5,255.1	78.8
1974	28,893.6	16,552.3	11,305.5	5,179.3	67.5
1975	24,736.3	14,354.3	9,854.3	4,449.3	50.7
1976	28,415.6	16,493.1	11,375.9	5,061.4	55.8
1977	28,934.7	16,951.3	11,695.8	5,207.9	47.6
1978	30,251.1	17,687.0	12,133.7	5,503.1	50.2
1979	31,404.1	18,649.6	12,819.6	5,775.9	54.1
1980	30,925.9	17,886.7	12,393.1	5,445.6	48.0
1981	31,208.3	18,811.7	13,078.5	5,702.0	31.2
1982	29,044.7	17,309.4	11,935.5	5,341.8	32.1
1983	32,145.7	18,999.8	13,124.7	5,838.1	37.0
1984	34,002.1	20,715.4	14,272.5	6,404.2	38.7
1985	32,921.8	20,042.2	13,752.9	6,255.4	33.9
1986	35,355.4	21,443.3	14,725.8	6,686.6	30.9
1987	37,442.0	23,047.1	15,992.7	7,016.9	37.5
1988	38,232.9	23,562.9	16,177.3	7,350.7	35.0
1989	38,519.1	23,751.8	16,399.3	7,338.7	13.8
1990	39,415.1	24,431.6	16,875.4	7,549.2	7.0
1991	40,416.3	24,484.1	17,005.7	7,478.4	0.0 **

* - Reclassification: balance of chip board (non-containerboard grades) included in "All Other." RS = Revised Series.

** - Containerboard content of Chip and Filler Board included in Corrugating Material.

TABLE III (Cont.)

PAPERBOARD PRODUCTION 1955-1991

BY END USE

THOUSAND TONS	BOXBOARD-DOMESTIC USE				ALL OTHER
YEAR	Total	Folding	Set-Up	Milk Carton & Food Service	Total
1955	4,407.4	2,938.8	636.7	831.9	2,392.1
1956	4,530.3	2,970.9	636.7	922.7	2,390.0
1957	4,513.4	3,020.8	568.2	924.4	2,331.3
1958	4,533.3	3,032.5	538.6	962.2	2,444.5
1959	4,911.4	3,285.9	576.1	1,049.4	2,828.6
1960	4,894.9	3,291.2	525.1	1,078.6	2,845.0
1961	5,007.5	3,374.8	496.8	1,135.9	3,058.5
1962	5,265.2	3,501.8	523.8	1,239.6	3,283.2
1963	5,417.2	3,635.8	526.8	1,254.6	3,538.1
1964	5,580.8	3,752.3	534.0	1,294.5	4,031.1
1965	5,811.2	3,879.6	547.3	1,38	4,321.2
1966	6,075.9	4,040.3	559.7	1,475.9	4,643.1
1967	5,973.1	4,020.7	496.1	1,456.3	4,597.6
1968	6,334.0	4,218.3	519.5	1,596.2	5,181.2
1969	6,424.8	4,261.6	498.6	1,664.6	5,554.5
1970 RS	6,303.1	4,144.1	466.5	1,692.5	5,307.8
1971	6,195.7	4,101.4	448.0	1,646.3	5,697.9
1972	6,531.6	4,420.5	455.1	1,656.0	6,179.4
1973	6,741.8	4,682.1	465.3	1,594.4	6,117.4
1974	6,377.7	4,405.2	403.6	1,568.9	5,963.6
1975	5,644.6	3,877.2	304.5	1,462.9	4,737.4
1976	6,540.8	4,690.9	331.4	1,518.5	5,381.7
1977	6,313.9	4,528.3	302.5	1,483.1	5,669.5
1978	6,457.4	4,678.5	332.7	1,446.2	6,106.7
1979	6,443.8	4,695.1	306.0	1,442.7	6,310.7
1980	6,126.6	4,463.5	241.5	1,421.6	6,912.6
1981	6,192.5	4,563.9	236.0	1,392.6	6,204.1
1982	5,820.2	4,313.0	223.6	1,283.6	5,915.1
1983	6,230.1	4,615.1	256.3	1,358.7	6,915.8
1984	6,498.6	4,839.0	263.8	1,395.8	6,788.1
1985	6,412.8	4,805.1	226.6	1,381.1	6,466.8
1986	6,671.1	5,056.5	219.3	1,395.3	7,241.0
1987	6,874.1	5,209.7	242.5	1,421.9	7,520.8
1988	7,013.8	5,292.7	278.7	1,442.4	7,655.9
1989	7,076.4	5,370.0	287.8	1,418.6	7,691.4
1990	6,946.1	5,197.2	287.9	1,461.0	8,037.3
1991	7,326.2	5,588.5	274.7	1,463.0	8,606.0

RS - Revised Series

TABLE IV

CONTAINERBOARD PRODUCTION 1955 - 1991

FOR DOMESTIC USE

THOUSAND TONS	CONTAINERBOARD	LINERBOARD		
YEAR	TOTAL	Total	Kraft	Recycled
1955	7,244.2	4,789.6	3,947.4	842.2
1956	7,451.3	4,933.4	4,139.6	793.8
1957	7,337.2	4,869.7	4,097.9	771.8
1958	7,259.2	4,818.9	4,110.2	708.7
1959	8,232.0	5,475.4	4,701.0	774.4
1960	8,186.6	5,474.8	4,731.2	743.6
1961	8,661.3	5,753.9	5,095.7	658.2
1962	9,299.0	6,216.5	5,514.7	701.8
1963	9,638.3	6,414.0	5,706.1	707.9
1964	10,341.9	6,907.5	6,188.0	719.5
1965	11,199.1	7,480.6	6,698.1	782.5
1966	12,459.6	8,347.3	7,550.2	797.1
1967	12,248.6	8,215.6	7,693.3	522.3
1968	13,388.4	9,043.7	8,612.2	431.5
1969	14,396.4	9,692.5	9,345.3	347.2
1970 RS	13,756.6	9,403.1	9,133.4	269.7
1971	14,125.5	9,530.8	9,249.1	281.7
1972	15,772.3	10,856.5	10,577.6	278.9
1973	16,689.7	11,355.8	11,066.8	289.0
1974	16,552.3	11,305.5	10,838.4	467.1
1975	14,354.3	9,854.3	9,647.0	207.3
1976	16,493.1	11,375.9	11,093.2	282.7
1977	16,951.3	11,695.8	11,354.4	341.4
1978	17,687.0	12,133.7	11,877.3	256.4
1979	18,649.6	12,819.6	12,417.3	402.3
1980	17,886.7	12,393.1	11,948.6	444.5
1981	18,811.7	13,078.5	12,754.3	324.2
1982	17,309.4	11,935.5	11,656.5	279.0
1983	18,999.8	13,124.7	12,835.6	289.1
1984	20,715.4	14,272.5	14,068.8	203.7
1985	20,042.2	13,752.9	13,467.1	285.8
1986	21,443.0	14,725.8	14,305.5	420.3
1987	23,047.1	15,992.7	15,514.4	478.3
1988	23,562.9	16,177.0	15,770.6	406.4
1989	23,751.8	16,399.3	16,011.1	388.2
1990	24,431.6	16,875.4	16,552.7	322.7
1991	24,484.1	17,005.7	16,383.2	622.6

RS - Revised Series

TABLE IV (Cont.)

CONTAINERBOARD PRODUCTION 1955 - 1991

FOR DOMESTIC USE

THOUSAND TONS	CORRUGATING MATERIAL			CHIP AND FILLER BOARDS
YEAR	Total	Semi-Chemical #	Recycled	Total
1955	2,165.4	1,470.2	695.2	289.2
1956	2,249.5	1,551.7	697.8	268.4
1957	2,215.6	1,557.8	657.8	251.9
1958	2,191.3	1,486.2	705.1	249.0
1959	2,498.8	1,786.1	712.7	257.8
1960	2,461.0	1,788.9	672.1	250.8
1961	2,649.3	2,023.5	625.8	258.1
1962	2,822.1	2,188.8	633.3	260.4
1963	2,961.8	2,287.1	674.7	262.5
1964	3,165.1	2,447.4	717.7	269.3
1965	3,438.2	2,638.2	800.0	280.3
1966	3,799.8	2,909.8	890.0	312.5
1967	3,743.5	2,982.1	761.4	289.5
1968	4,061.9	3,371.2	690.7	282.8
1969	4,395.4	3,617.0	778.4	308.6
1970 RS	4,264.0	3,404.7	859.3	89.5 *
1971	4,519.7	3,580.2	939.5	75.0
1972	4,846.6	3,874.3	972.3	69.2
1973	5,255.1	4,126.6	1,128.5	78.8
1974	5,179.3	4,010.3	1,169.0	67.5
1975	4,449.3	3,579.3	870.0	50.7
1976	5,061.4	3,986.4	1,075.0	55.8
1977	5,207.9	4,128.2	1,079.7	47.6
1978	5,503.1	4,305.3	1,197.8	50.2
1979	5,775.9	4,573.6	1,202.3	54.1
1980	5,445.6	4,398.5	1,047.1	48.0
1981	5,702.0	4,561.2	1,140.8	31.2
1982	5,341.8	4,202.5	1,139.3	32.1
1983	5,838.1	4,532.7	1,305.4	37.0
1984	6,404.2	5,018.8	1,385.4	38.7
1985	6,255.4	4,896.6	1,358.8	33.9
1986	6,686.6	5,160.8	1,525.8	30.9
1987	7,016.9	5,343.8	1,673.1	37.5
1988	7,350.9	5,527.7	1,823.2	35.0
1989	7,338.7	5,553.5	1,785.2	13.8
1990	7,549.2	5,567.4	1,981.9	7.0
1991	7,478.4	5,540.9	1,937.5	0.0

- Includes a small amount of unbleached kraft for years 1970 - 1976. RS - Revised Series.

* - Reclassification: balance of chipboard (non-containerboard grades) included in "All Other."

TABLE V

BLEACHED PAPERBOARD PRODUCTION 1960 - 1991

THOUSAND TONS YEAR	Milk Cartons	Folding Cartons	Heavyweight Cup, Rounded Nested Food Containers and Cup Lids	Plate Dish and Tray	Other Packaging Uses*	Linerboard
1960	571.0	745.2	287.4	123.7	136.2	76.0
1961	600.5	797.6	312.9	127.9	146.1	103.5
1962	678.5	865.1	324.4	148.4	139.2	124.2
1963	677.1	943.0	325.3	160.2	153.4	124.2
1964	692.0	988.8	329.2	178.8	182.3	101.1
1965	752.1	1,051.8	339.0	202.1	182.6	75.0
1966	783.2	1,100.7	367.2	232.1	200.4	100.3
1967	772.8	1,133.8	368.6	247.3	171.4	89.5
1968	848.8	1,234.1	412.0	258.9	195.1	104.9
1969	884.6	1,346.0	416.2	282.2	200.9	113.6
1970 RS	940.7	1,327.7	374.2	279.6	198.6	118.8
1971	918.8	1,354.1	366.7	272.9	245.9	124.4
1972	894.4	1,553.5	395.6	313.3	288.6	129.8
1973	871.2	1,705.7	410.4	296.5	348.5	127.7
1974	850.2	1,654.6	415.8	289.6	382.7	99.4
1975	865.8	1,436.3	350.6	233.4	315.8	81.8
1976	822.9	1,773.4	412.3	266.7	402.2	99.5
1977	808.7	1,573.2	401.3	262.4	525.2	85.0
1978	731.2	1,739.5	418.7	287.1	614.9	115.7
1979**	718.7	1,688.8	432.0	274.1	690.2	110.9
1980	677.6	1,548.3	419.5	298.4	747.2	96.3
1981	631.8	1,631.2	441.7	287.4	749.2	100.6
1982	590.5	1,546.2	374.8	274.5	726.9	93.4
1983	606.9	1,693.7	426.3	281.1	734.7	115.0
1984	632.7	1,809.6	416.4	303.5	700.3	118.5
1985	609.0	1,742.0	438.2	284.0	693.6	113.8
1986	581.4	1,911.3	437.2	322.2	779.6	132.0
1987	619.5	2,002.8	444.1	316.0	843.2	134.3
1988	606.3	2,016.5	467.5	324.1	878.0	169.8
1989	565.6	1,980.4	452.4	362.1	915.6	177.7
1990	616.9	1,817.6	478.4	316.5	946.3	138.9
1991	612.6	1,938.3	464.9	340.8	959.0	169.8

* - Includes Exports.

** - Starting in 1979, lightweight cup is included with heavyweight cup. RS - Revised Series.

TABLE V (Cont.)

BLEACHED PAPERBOARD PRODUCTION 1960 - 1991

THOUSAND TONS	SUMMARY OF PACKAGING PAPERBOARD			NON-PKG. USES	BLEACHED PAPERBOARD PRODUCTION
YEAR	Total Packaging Paperboard	Milk Carton and Food Service	Other Packaging	Total	Total
1960	1,939.5	1,078.6	860.9	119.7	2059.2
1961	2,088.5	1,135.9	952.6	151.5	2240.0
1962	2,279.8	1,239.6	1,040.2	173.6	2453.4
1963	2,383.2	1,254.6	1,128.6	181.8	2565.0
1964	2,472.2	1,294.5	1,177.7	220.8	2693.0
1965	2,602.6	1,384.3	1,218.3	244.4	2847.0
1966	2,783.9	1,475.9	1,308.0	301.4	3085.3
1967	2,783.4	1,456.3	1,327.1	273.8	3057.2
1968	3,053.8	1,596.2	1,457.6	314.0	3367.9
1969	3,243.5	1,664.6	1,578.9	316.4	3559.9
1970 RS	3,239.6	1,649.0	1,590.6	87.8	3327.4
1971	3,282.8	1,604.3	1,678.5	80.5	3363.3
1972	3,575.2	1,623.4	1,951.8	91.9	3667.1
1973	3,760.0	1,594.3	2,165.7	81.5	3841.5
1974	3,692.3	1,568.7	2,123.6	59.5	3751.8
1975	3,283.7	1,462.1	1,821.6	40.3	3324
1976	3,777.0	1,518.4	2,258.6	43.3	3820.3
1977	3,655.8	1,483.1	2,172.7	47.2	3703.0
1978	3,907.1	1,446.2	2,460.9	47.7	3954.8
1979	3,914.7	1,442.7	2,472.0	58.6	3973.3
1980	3,787.3	1,421.6	2,365.7	48.5	3835.8
1981	3,841.9	1,392.6	2,449.3	44.2	3886.1
1982	3,606.3	1,283.6	2,322.7	37.7	3644.0
1983	3,861.7	1,358.7	2,503.0	33.1	3894.8
1984	3,981.0	1,395.8	2,585.2	30.2	4011.2
1985	3,880.6	1,381.1	2,499.5	30.2	3910.8
1986	4,163.7	1,395.3	2,768.4	43.5	4207.2
1987	4,359.9	1,421.9	2,938.0	46.4	4406.3
1988	4,462.0	1,442.4	3,019.6	48.9	4510.9
1989	4,453.6	1,418.6	3,035.0	67.6	4521.4
1990	4,314.8	1,461.0	2,853.8	84.6	4399.4
1991	4,485.4	1,463.0	3,022.4	86.5	4571.9

* - Includes Exports. RS - Revised Series.

TABLE VI

PAPERBOARD PRODUCTION BY REGION

1971 - 1991

THOUSAND TONS	PAPERBOARD	CONTAINERBOARD-DOMESTIC USE			
YEAR	TOTAL	Total	Linerboard	Corrugating Material	Container Chip & Filler Board
NORTH EASTERN					
1971	2,525.3	634.8	54.4	551.1	29.3
1972	2,622.7	645.8	54.7	562.3	28.8
1973	2,733.9	725.3	56.9	615.3	53.1
1974	2,677.5	852.1	152.7	642.0	57.4
1975	2,052.1	536.4	35.2	445.4	55.8
1976	2,255.2	566.2	70.8	448.2	47.2
1977	2,247.3	562.9	70.8	446.6	45.5
1978	2,284.4	561.3	37.4	470.2	53.7
1979	2,259.8	564.2	61.4	456.7	46.1
1980	2,042.7	486.9	27.3	415.2	44.4
1981	1,867.7	369.9	-	328.5	41.4
1982	1,651.9	342.8	10.8	295.6	36.4
1983	1,891.1	380.3	45.6	317.8	16.9
1984	1,835.3	362.4	-	346.0	16.4
1985	1,828.1	333.3	-	327.3	6.0 *
1986	1,929.8	375.7	-	369.3	6.4
1987	1,997.5	391.0	0.3	375.6	15.1
1988	2,066.6	422.5	15.4	398.6	8.5
1989	2,018.0	402.8	7.8	386.5	8.5
1990	1,930.9	372.1	4.7	367.4	-
1991	2,085.6	482.4	1.4	481.0	-
SOUTHERN					
1971	15,764.5	9,330.7	7,507.6	1,789.6	33.5
1972	17,464.8	10,671.2	8,658.6	1,988.1	24.5
1973	18,157.0	11,256.8	9,083.5	2,159.0	14.3
1974	17,857.1	11,006.8	8,883.3	2,111.0	12.5
1975	15,733.1	9,882.1	7,957.7	1,860.9	63.4
1976	18,097.2	11,400.7	9,178.2	2,181.4	41.1
1977	18,204.3	11,541.0	9,299.0	2,199.4	42.6
1978	19,516.2	12,268.7	9,890.2	2,331.5	47.0
1979	20,194.2	12,692.1	10,280.6	2,376.9	34.6
1980	20,165.8	12,120.0	9,897.6	2,196.4	26.0
1981	20,418.2	12,863.0	10,527.9	2,300.9	34.2
1982	19,221.8	11,872.3	9,682.3	2,157.3	32.7
1983	20,899.3	12,864.3	10,546.5	2,280.5	37.3
1984	22,238.1	14,143.6	11,536.9	2,568.1	38.6
1985	21,389.7	13,606.5	11,068.8	2,536.2	1.5 *
1986	22,939.8	14,364.3	11,693.4	2,668.5	2.4
1987	24,484.8	15,663.7	12,811.7	2,852.0	-
1988	25,063.1	16,035.3	12,969.1	3,066.2	-
1989	23,988.0	16,312.5	13,236.0	3,076.4	-
1990	26,634.5	16,863.3	13,750.8	3,112.5	-
1991	27,055.5	17,066.8	13,887.2	3,179.6	-

NOTE: Exports are included in "All Other." * Reclassification. Balance of chipboard (non-containerboard grades) included in "All Other." Detail does not necessarily add to totals due to rounding.

TABLE VI (Cont.)

PAPERBOARD PRODUCTION BY REGION

1971 - 1991

THOUSAND TONS	BOXBOARD-DOMESTIC USE				ALL OTHER
YEAR	Total	Folding	Set-Up	Milk Carton & Food Service	Total
NORTH EASTERN					
1971	1,003.9	767.1	176.2	60.6	886.6
1972	1,020.8	788.4	181.3	51.1	956.1
1973	961.9	752.2	181.0	28.7	1,046.7
1974	861.6	679.8	154.2	27.6	963.8
1975	724.5	582.0	116.5	26.0	791.2
1976	841.1	690.8	120.9	29.4	847.9
1977	865.1	735.4	102.5	27.2	819.3
1978	861.1	723.3	112.7	25.0	862.1
1979	840.9	721.9	85.5	33.5	854.7
1980	787.8	680.4	72.3	35.1	768.0
1981	780.1	687.9	63.4	28.8	717.7
1982	678.1	593.3	59.4	25.4	631.0
1983	730.9	631.0	74.1	25.8	779.9
1984	710.1	614.2	71.2	24.7	762.8
1985	673.8	587.0	65.2	21.6	821.0 *
1986	703.7	649.6	54.1	-	850.4
1987	758.5	686.9	71.6	-	848.0
1988	781.3	695.3	86.0	-	862.8
1989	810.1	724.8	85.3	-	805.1
1990	702.7	607.2	95.5	-	856.1
1991	791.9	716.1	75.8	-	811.3
SOUTHERN					
1971	2,943.0	1,407.0	105.5	1,430.5	3,490.8
1972	3,110.0	1,555.0	108.4	1,446.6	3,683.6
1973	3,299.1	1,767.2	118.0	1,413.9	3,601.1
1974	3,169.1	1,677.3	104.9	1,386.9	3,681.2
1975	2,870.4	1,517.8	89.6	1,263.0	2,980.6
1976	3,329.8	1,899.5	99.7	1,330.6	3,366.7
1977	3,094.3	1,710.4	96.6	1,287.3	3,569.0
1978	3,278.4	1,892.7	104.5	1,281.2	3,969.1
1979	3,250.8	1,869.5	104.5	1,276.8	4,251.3
1980	3,123.3	1,768.8	100.3	1,254.2	4,922.5
1981	3,177.3	1,839.2	105.4	1,232.7	4,377.9
1982	2,991.9	1,740.5	94.5	1,156.9	4,357.6
1983	3,233.5	1,927.0	98.8	1,207.7	4,801.5
1984	3,392.8	2,046.0	107.3	1,239.5	4,701.7
1985	3,294.9	1,990.1	86.4	1,218.4	4,488.3 *
1986	3,483.4	2,118.4	94.4	1,270.6	5,092.1
1987	3,578.3	2,210.0	93.2	1,275.1	5,246.0
1988R	3,590.6	2,220.7	105.5	1,264.4	5,437.2
1989R	4,549.5	3,130.9	112.3	1,306.3	3,126.0
1990	4,330.1	2,933.1	91.1	1,305.9	5,441.1
1991	4,622.0	3,248.6	92.9	1,280.5	5,366.7

NOTE: Exports are included in "All Other." Detail does not necessarily add due to rounding.
For this table, unbleached kraft folding has been included with the "All Other" domestic data.
* Reclassification.

TABLE VI (Cont.)

PAPERBOARD PRODUCTION BY REGION

1971 - 1991

THOUSAND TONS	PAPERBOARD	CONTAINERBOARD-DOMESTIC USE			
YEAR	TOTAL	Total	Linerboard	Corrugating Material	Container Chip & Filler Board
NORTH CENTRAL					
1971	4,041.1	1,854.0	101.8	1,534.1	218.1
1972	4,245.5	1,926.0	106.4	1,597.4	222.2
1973	4,360.5	2,031.9	111.0	1,697.3	223.6
1974	4,186.5	2,005.7	176.6	1,637.9	191.2
1975	3,367.2	1,655.4	63.9	1,448.6	142.9
1976	3,927.9	1,869.8	57.0	1,663.9	148.9
1977	4,091.7	2,010.3	117.2	1,734.3	158.8
1978	4,164.2	2,127.5	98.6	1,870.4	158.5
1979	4,352.9	2,334.9	165.8	2,029.3	139.8
1980	4,137.7	2,271.1	191.4	1,943.5	136.1
1981	4,288.2	2,416.9	143.3	2,124.8	148.8
1982	3,979.3	2,210.0	103.9	1,984.3	121.8
1983	4,396.7	2,413.3	60.8	2,227.0	125.5
1984	4,770.4	2,600.9	75.3	2,409.6	116.0
1985	4,565.3	2,441.2	86.8	2,333.4	21.0 *
1986	4,898.3	2,648.7	73.2	2,555.9	19.6
1987	5,042.9	2,716.5	72.4	2,623.9	20.2
1988	5,136.4	2,778.0	63.5	2,690.5	24.0
1989	6,572.8	2,730.3	42.9	2,685.0	2.4
1990	5,132.8	2,881.7	44.2	2,833.4	7.1
1991	5,251.5	2,798.6	173.4	2,625.2	-
PACIFIC COAST					
1971	3,688.2	2,533.5	1,867.0	644.9	21.6
1972	4,150.3	2,776.0	2,036.8	698.8	40.4
1973	4,297.5	2,914.0	2,104.4	783.5	26.1
1974	4,172.5	2,902.4	2,092.9	788.3	21.2
1975	3,583.9	2,512.3	1,797.4	694.4	20.5
1976	4,135.3	2,863.5	2,069.9	768.0	25.6
1977	4,391.4	3,053.2	2,208.8	827.6	16.8
1978	4,286.3	2,950.8	2,107.5	831.0	12.3
1979	4,597.2	3,233.6	2,311.8	913.0	8.0
1980	4,579.7	3,192.3	2,276.8	890.5	25.0
1981	4,634.2	3,390.2	2,407.3	947.8	35.1
1982	4,191.7	3,082.4	2,138.5	904.6	39.3
1983	4,958.6	3,515.1	2,471.8	1,012.8	30.5
1984	5,158.3	3,748.2	2,660.3	1,080.5	7.4
1985	5,138.7	3,661.2	2,597.3	1,058.5	5.4 *
1986	5,587.8	4,054.9	2,959.5	1,092.9	2.5
1987	5,913.6	4,275.9	3,108.3	1,165.4	2.2
1988	5,968.2	4,327.4	3,129.3	1,195.6	2.5
1989	5,940.9	4,306.2	3,112.5	1,191.2	2.5
1990	5,724.6	4,314.5	3,078.6	1,235.9	-
1991	6,018.3	4,136.9	2,944.1	1,192.8	-

* Reclassification. Balance of chipboard (non-containerboard grades) included in "All Other."

TABLE VI (Cont.)

PAPERBOARD PRODUCTION BY REGION

1971 - 1991

THOUSAND TONS	BOXBOARD-DOMESTIC USE				ALL OTHER
YEAR	Total	Folding	Set-Up	Milk Carton & Food Service	Total
NORTH CENTRAL					
1971	1,345.5	1,195.8	140.9	8.8	841.6
1972	1,396.3	1,246.0	141.8	8.5	923.2
1973	1,379.4	1,236.3	142.7	0.4	949.2
1974	1,262.3	1,137.6	124.6	0.1	918.5
1975	1,018.4	937.2	80.6	0.6	693.4
1976	1,177.9	1,089.8	88.0	0.1	880.2
1977	1,165.2	1,077.5	87.7	-	916.2
1978	1,123.9	1,031.8	92.1	-	912.8
1979	1,105.5	1,009.7	95.8	-	912.5
1980	1,030.7	978.2	52.5	-	835.9
1981	1,062.3	1,011.8	50.5	-	809.0
1982	1,035.1	984.2	50.9	-	734.2
1983	1,112.1	1,049.8	62.3	-	871.3
1984	1,176.0	1,104.9	71.1	-	993.5
1985	1,154.9	1,090.1	64.8	-	969.2
1986	1,131.1	1,064.4	66.7	-	1,118.5
1987	1,182.7	1,110.0	72.7	-	1,143.7
1988	1,178.0	1,094.3	83.7	-	1,180.4
1989	1,188.5	1,116.1	72.4	-	2,654.0
1990	1,338.7	1,257.0	81.7	-	912.4
1991	1,306.2	1,229.7	76.5	-	1,152.2
PACIFIC COAST					
1971	563.7	391.9	25.4	146.4	591.0
1972	614.7	441.3	23.6	149.8	759.6
1973	646.6	471.6	23.6	151.4	736.9
1974	615.0	440.8	19.9	154.3	655.1
1975	568.3	377.2	17.8	173.3	503.3
1976	614.5	433.3	22.8	158.4	657.3
1977	601.4	417.1	15.7	168.6	736.8
1978	576.5	413.1	23.4	140.0	759.0
1979	548.8	396.2	20.2	132.4	814.8
1980	504.4	355.7	16.4	132.3	883.0
1981	500.9	353.1	16.7	131.1	743.1
1982	424.5	304.4	18.8	101.3	684.8
1983	443.5	297.2	21.1	125.2	1,000.0
1984	467.3	321.5	14.2	131.6	942.8
1985	467.5	316.2	10.2	141.1	1,010.0
1986	463.5	334.7	4.1	124.7	1,069.4
1987	489.7	337.9	5.0	146.8	1,148.0
1988	540.1	358.3	3.5	178.3	1,100.7
1989	527.1	398.2	16.6	112.3	1,107.6
1990	576.4	400.4	21.4	154.6	833.7
1991	605.7	393.4	29.6	182.7	1,275.7

NOTES: Exports and Unbleached Kraft Folding in "All Other." Detail may not add due to rounding.

TABLE VII

PAPERBOARD PRODUCTION

BY GRADE AND TYPE 1974 – 1991

THOUSAND TONS	CONTAINERBOARD – DOMESTIC				BOXBOARD – DOMESTIC		
YEAR	Total	Linerboard	Corrugating Material	Container Chip & Filler Board	Total	Folding	Set–Up
Total Paperboard							
1974	16,552.3	11,305.5	5,179.3	67.5 *	6,377.7	4,405.2	403.6
1975	14,354.3	9,854.3	4,449.3	50.7 *	5,644.6	3,877.2	304.5
1976	16,493.1	11,375.9	5,061.4	55.8 *	6,540.8	4,690.9	331.4
1977	16,951.3	11,695.8	5,207.9	47.6 *	6,313.9	4,528.3	302.5
1978	17,687.0	12,133.7	5,503.1	50.2 *	6,457.4	4,678.5	332.7
1979	18,649.6	12,819.6	5,775.9	54.1 *	6,443.8	4,695.1	306.0
1980	17,886.7	12,393.1	5,445.6	48.0 *	6,126.6	4,463.5	241.5
1981	18,811.7	13,078.5	5,702.0	31.2 *	6,192.5	4,563.9	236.0
1982	17,309.4	11,935.5	5,341.8	32.1 *	5,820.2	4,313.0	223.6
1983	18,999.8	13,124.7	5,838.1	37.0 *	6,230.1	4,615.1	256.3
1984	20,715.4	14,272.5	6,404.2	38.7 *	6,498.6	4,939.0	263.8
1985	20,042.2	13,752.9	6,255.4	33.9 *	6,412.8	4,805.1	226.6
1986	21,446.0	14,725.8	6,689.3	30.9	6,671.1	5,056.5	219.3
1987	23,047.1	15,992.7	7,016.9	37.5	6,874.1	5,209.7	242.5
1988	23,562.9	16,177.0	7,350.9	35.0	7,013.9	5,292.7	278.8
1989	23,751.8	16,399.3	7,338.7	13.8	7,076.4	5,370.0	287.8
1990	24,431.6	16,875.4	7,549.2	7.0	6,948.1	5,197.2	287.9
1991	24,484.1	17,005.7	7,478.4	0.0	7,326.2	5,588.5	274.7
Unbleached Kraft							
1974	10,754.3	10,739.0	3.8	11.5	469.7	469.7	–
1975	9,586.0	9,565.2	8.7	12.1	463.0	463.0	–
1976	11,023.9	10,993.7	20.1	10.1	577.5	577.5	–
1977	11,283.0	11,269.4	–	13.6	587.9	587.9	–
1978	11,779.7	11,761.6	–	18.1	617.6	617.6	–
1979	12,306.5	12,306.5	–	–	697.8	697.8	–
1980	11,852.3	11,852.3	–	–	680.4	680.4	–
1981	12,653.7	12,653.7	–	–	671.9	671.9	–
1982	11,563.1	11,563.1	–	–	690.6	690.6	–
1983	12,720.6	12,720.6	–	–	710.1	710.1	–
1984	13,950.3	13,950.3	–	–	752.4	752.4	–
1985	13,353.3	13,353.3	–	–	821.7	821.7	–
1986	14,173.5	14,173.5	–	–	889.4	889.4	–
1987	15,380.1	15,380.1	–	–	864.9	864.9	–
1988	15,601.0	15,601.0	–	–	923.6	923.6	–
1989	15,833.4	15,833.4	–	–	986.7	986.7	–
1990	16,413.8	16,413.8	–	–	970.4	970.4	–
1991	16,213.3	16,213.3	–	–	1,123.9	1,123.9	–
Semichemical							
1974	4,006.5	–	4,006.5	–	–	–	–
1975	3,570.6	–	3,570.6	–	–	–	–
1976	3,966.3	–	3,966.3	–	–	–	–
1977	4,128.2	–	4,128.2	–	–	–	–
1978	4,305.3	–	4,305.3	–	–	–	–
1979	4,573.6	–	4,573.6	–	–	–	–
1980	4,398.5	–	4,398.5	–	–	–	–
1981	4,561.2	–	4,561.2	–	–	–	–
1982	4,202.5	–	4,202.5	–	–	–	–
1983	4,532.7	–	4,532.7	–	–	–	–
1984	5,018.8	–	5,018.8	–	–	–	–
1985	4,896.6	–	4,896.6	–	–	–	–
1986	5,163.5	–	5,163.5	–	–	–	–
1987	5,343.8	–	5,343.8	–	–	–	–
1988	5,527.7	–	5,527.7	–	–	–	–
1989	5,553.5	–	5,553.5	–	–	–	–
1990	5,567.4	–	5,567.4	–	–	–	–
1991	5,540.9	–	5,540.9	–	–	–	–

– Represents zero.

* Reclassification. Balance of chipboard (non–containerboard grades) included in "All Other."

TABLE VII (Cont.)

PAPERBOARD PRODUCTION

BY GRADE AND TYPE 1974 - 1991

THOUSAND TONS	BOXBOARD (Cont.)	ALL OTHER (Excl. Exports)				EXPORTS	ALL GRADES
YEAR	Milk Carton & Food Service	TOTAL	Gypsum Wallboard Facing	Tube, Can and Drum	Balance of All Other	Total	Total
Total Paperboard							
1974	1,568.9	3,814.2	984.1	1,128.5	1,701.6	2,149.4	28,893.6
1975	1,462.9	3,284.1	893.8	907.4	1,482.9	1,453.3	24,736.3
1976	1,518.5	3,672.5	984.5	1,016.6	1,671.4	1,709.2	28,415.6
1977	1,483.1	3,839.1	1,056.8	1,075.9	1,706.4	1,830.4	28,934.7
1978	1,446.2	4,066.8	1,094.0	1,163.0	1,809.8	2,039.9	30,251.1
1979	1,442.7	4,048.1	1,179.9	1,177.2	1,691.0	2,262.6	31,404.1
1980	1,421.6	3,578.2	918.8	1,077.7	1,581.7	3,334.4	30,925.9
1981	1,392.6	3,582.2	887.6	1,114.6	1,580.0	2,621.9	31,208.3
1982	1,283.6	3,261.3	805.2	1,046.2	1,409.9	2,653.8	29,044.7
1983	1,358.7	3,903.8	1,053.8	1,210.8	1,639.2	3,012.0	32,145.7
1984	1,395.8	4,056.6	1,125.2	1,254.8	1,676.8	2,731.3	34,002.1
1985	1,381.1	3,955.5	1,149.4	1,211.4	1,594.7	2,511.3	32,921.8
1986	1,305.3	4,150.3	1,220.1	1,266.3	1,663.9	3,088.0	35,355.4
1987	1,421.9	4,331.2	1,237.0	1,333.9	1,760.3	3,189.6	37,442.0
1988	1,442.4	4,524.8	1,311.2	1,410.2	1,803.4	3,131.7	38,233.3
1989	1,418.6	4,459.3	1,281.1	1,453.3	1,724.9	3,232.1	38,519.6
1990 R	1,461.0	4,423.1	1,229.6	1,455.6	1,737.9	3,614.2	39,415.1
1991	1,463.0	4,290.3	1,081.4	1,464.4	1,744.5	4,315.7	40,416.3
Unbleached Kraft							
1974	-	526.2	-	231.0	295.2	1,582.7	13,332.9
1975	-	435.9	-	175.9	260.0	1,057.9	11,542.8
1976	-	483.5	-	217.5	266.0	1,247.3	13,332.2
1977	-	490.3	-	227.8	262.5	1,289.6	13,650.8
1978	-	508.9	-	250.6	258.3	1,466.3	14,372.5
1979	-	500.9	-	267.0	233.9	1,645.9	15,151.1
1980	-	382.7	-	226.4	156.3	2,379.9	15,295.3
1981	-	390.2	-	219.2	171.0	1,886.5	15,602.3
1982	-	349.7	-	192.9	156.8	1,931.5	14,534.9
1983	-	410.9	-	204.3	206.6	2,280.7	16,122.3
1984	-	396.3	-	191.5	204.8	2,086.4	17,185.4
1985	-	362.6	-	164.2	198.4	1,830.0	16,367.6
1986	-	380.8	-	164.0	216.8	2,236.6	17,680.3
1987	-	350.1	-	160.6	189.5	2,302.8	18,897.9
1988	-	320.0	-	155.3	164.7	2,295.7	19,140.3
1989	-	307.1	-	149.5	157.6	2,363.0	19,490.2
1990	-	282.4	-	125.4	157.0	2,690.6	20,357.2
1991	-	300.5	-	106.1	194.4	3,322.7	20,960.4
Semichemical							
1974	-	23.4	-	17.4	6.0	145.5	4,175.4
1975	-	15.8	-	13.9	1.9	115.4	3,701.8
1976	-	19.4	-	18.2	1.2	119.3	4,105.0
1977	-	14.3	-	14.3	-	121.9	4,264.4
1978	-	14.8	-	14.6	0.2	119.2	4,439.3
1979	-	17.3	-	10.8	6.5	96.2	4,689.1
1980	-	2.7	-	2.4	0.3	322.3	4,723.5
1981	-	2.8	-	2.7	0.1	155.2	4,719.2
1982	-	1.9	-	1.3	0.6	184.9	4,389.3
1983	-	5.1	-	-	5.1	192.6	4,730.4
1984	-	1.0	-	-	1.0	149.2	5,169.0
1985	-	2.0	-	-	2.0	189.4	5,088.0
1986	-	-	-	-	-	212.5	5,376.0
1987	-	-	-	-	-	192.5	5,536.3
1988	-	-	-	-	-	136.3	5,664.0
1989	-	-	-	-	-	137.6	5,691.1
1990	-	-	-	-	-	142.5	5,709.9
1991	-	-	-	-	-	170.2	5,711.1

- Represents zero. R - Revised.

TABLE VII (Cont.)

PAPERBOARD PRODUCTION

BY GRADE AND TYPE 1974 – 1991

THOUSAND TONS	CONTAINERBOARD – DOMESTIC				BOXBOARD – DOMESTIC		
YEAR	Total	Linerboard	Corrugating Material	Container Chip & Filler Board	Total	Folding	Set-Up
Solid Bleached							
1974	99.4	99.4	–	–	3,223.3	1,654.6	–
1975	81.8	81.8	–	–	2,898.4	1,436.3	–
1976	99.5	99.5	–	–	3,291.8	1,773.4	–
1977	85.0	85.0	–	–	3,056.3	1,573.2	–
1978	115.7	115.7	–	–	3,185.7	1,739.5	–
1979	110.9	110.9	–	–	3,131.5	1,688.8	–
1980	96.3	96.3	–	–	2,969.9	1,548.3	–
1981	100.6	100.6	–	–	3,023.8	1,631.2	–
1982	93.4	93.4	–	–	2,829.8	1,546.2	–
1983	115.0	115.0	–	–	3,052.4	1,693.7	–
1984	118.5	118.5	–	–	3,205.4	1,809.6	–
1985	113.8	113.8	–	–	3,123.1	1,742.0	–
1986	132.0	132.0	–	–	3,306.6	1,911.3	–
1987	134.3	134.3	–	–	3,424.7	2,002.8	–
1988	169.6	169.6	–	–	3,458.6	2,016.5	–
1989	177.7	177.7	–	–	3,399.0	1,980.4	–
1990	138.9	138.9	–	–	3,278.6	1,817.6	–
1991	169.9	169.9	–	–	3,401.3	1,938.3	–
Recycled							
1974	1,692.1	467.1	1,169.0	56.0 *	2,684.5	2,280.9	403.6
1975	1,115.9	207.3	870.0	38.6 *	2,282.6	1,977.9	304.5
1976	1,403.4	282.7	1,075.0	45.7 *	2,671.4	2,340.0	331.4
1977	1,455.1	341.4	1,079.7	34.0 *	2,670.5	2,367.2	302.5
1978	1,486.3	256.4	1,197.8	32.1 *	2,654.2	2,321.4	332.7
1979	1,658.7	402.3	1,202.3	54.1 *	2,614.5	2,308.5	306.0
1980	1,539.6	444.5	1,047.1	48.0 *	2,476.3	2,234.8	241.5
1981	1,496.2	324.2	1,140.8	31.2 *	2,496.8	2,260.8	236.0
1982	1,450.4	279.0	1,139.3	32.1 *	2,299.8	2,076.2	223.6
1983	1,631.5	289.1	1,305.4	37.0 *	2,467.6	2,211.3	256.3
1984	1,627.8	203.7	1,385.4	38.7 *	2,540.8	2,277.0	263.8
1985	1,678.5	285.8	1,358.8	33.9 *	2,468.0	2,241.4	226.6
1986	1,977.0	420.3	1,525.8	30.9	2,475.1	2,255.8	219.3
1987	2,188.9	478.3	1,673.1	37.5	2,584.5	2,342.0	242.5
1988	2,264.9	406.7	1,823.2	35.0	2,631.3	2,352.6	278.7
1989	2,187.2	388.2	1,785.2	13.8	2,690.7	2,402.9	287.8
1990	2,311.6	322.7	1,981.9	7.0	2,697.1	2,409.2	287.9
1991	2,560.1	622.6	1,937.5	**	2,801.0	2,526.3	274.7

– Represents zero.

* Reclassification. Balance of chipboard (non-containerboard grades) included in "All Other."

** Included in Corrugating Material

TABLE VII (Cont.)

PAPERBOARD PRODUCTION

BY GRADE AND TYPE 1974 – 1991

THOUSAND TONS	BOXBOARD (Cont.)	ALL OTHER (Excl. Exports)				EXPORTS	ALL GRADES
YEAR	Milk Carton & Food Service	TOTAL	Gypsum Wallboard Facing	Tube, Can and Drum	Balance of All Other	Total	Total
Solid Bleached							
1974	1,568.7	108.9	–	–	108.9	320.2	3,751.8
1975	1,462.1	87.6	–	–	87.6	256.2	3,324.0
1976	1,518.4	122.9	–	–	122.9	306.1	3,820.3
1977	1,483.1	172.3	–	–	172.3	389.4	3,703.0
1978	1,446.2	220.5	–	–	220.5	432.9	3,954.8
1979	1,442.7	234.5	–	–	234.5	496.7	3,973.3
1980	1,421.6	220.0	–	–	220.0	549.6	3,835.8
1981	1,392.6	205.3	–	–	205.3	556.4	3,886.1
1982	1,283.6	196.1	–	–	196.1	524.7	3,644.0
1983	1,358.7	213.0	–	–	213.0	514.4	3,894.8
1984	1,395.8	209.0	–	–	209.0	478.3	4,011.2
1985	1,381.1	208.3	–	–	208.3	465.6	3,910.8
1986	1,395.3	199.9	–	–	199.9	568.7	4,207.2
1987	1,421.9	228.4	–	–	228.4	618.9	4,406.3
1988	1,442.1	255.0	–	–	255.0	627.7	4,510.9
1989	1,418.6	251.2	–	–	251.2	693.4	4,521.4
1990	1,461.0	249.4	–	–	249.4	732.5	4,399.2
1991	1,463.0	257.6	–	–	257.6	743.2	4,572.0
Recycled							
1974	0.2	3,155.7	984.1	880.1	1,291.5	101.0	7,633.5
1975	0.8	2,744.8	893.8	717.6	1,133.4	23.8	6,167.7
1976	0.1	3,046.7	984.5	780.9	1,281.3	36.5	7,158.1
1977	–	3,162.2	1,056.8	833.8	1,271.6	29.5	7,316.5
1978	–	3,322.6	1,094.0	897.8	1,330.8	21.5	7,484.5
1979	–	3,295.7	1,179.9	899.4	1,216.4	21.8	7,590.7
1980	–	2,972.8	918.8	848.9	1,205.1	82.6	7,071.3
1981	–	2,983.9	887.6	892.7	1,203.6	23.8	7,000.7
1982	–	2,713.6	805.2	852.0	1,056.4	12.7	6,476.5
1983	–	3,274.8	1,053.8	1,006.5	1,214.5	24.3	7,398.2
1984	–	3,450.5	1,125.2	1,063.3	1,262.0	17.4	7,636.5
1985	–	3,382.6	1,149.4	1,047.2	1,186.0	26.3	7,555.4
1986	–	3,569.6	1,220.1	1,102.3	1,247.2	70.2	8,091.9
1987	–	3,752.7	1,237.0	1,173.3	1,342.4	75.4	8,601.5
1988	–	3,949.8	1,311.2	1,254.9	1,383.7	72.0	8,917.5
1989	–	3,901.0	1,281.1	1,303.8	1,316.1	38.0	8,816.7
1990 R	–	3,891.3	1,229.6	1,330.2	1,331.5	48.5	8,948.7
1991	–	3,732.1	1,061.4	1,358.3	1,292.4	79.4	9,172.6

– Represents zero. R – Revised.

TABLE VIII

PAPER AND PAPERBOARD

PRODUCTION, NEW SUPPLY AND NEW SUPPLY/REAL G.D.P.

1964 – 1991

000 Short Tons	1964	1965	1966	1967	1968	1969	1970
Production – Total	40,962	43,455	46,701	46,568	50,133	52,914	51,670
Total Paper	18,112	19,157	20,725	20,926	22,181	23,449	23,351
Total Paperboard	19,954	21,332	23,178	22,819	24,890	26,362	25,367
Unbleached Kraft	7,600	8,301	9,303 E	9,485 E	10,762	11,816	11,541
Semichemical	2,481	2,681	2,969 E	3,057 E	3,475	3,697	3,518
Bleached Kraft	2,666	2,818	3,053 E	3,060 E	3,310 *	3,527	3,327
Recycled	7,207	7,532	7,853 E	7,217 E	7,343	7,322	6,981
Wet Machine Board	148	144	148	144	155	148	139
Building Paper	1,533	1,574	1,495	1,503	1,574	1,603	1,594
Insulating Board	1,215	1,248	1,155	1,176	1,333	1,352	1,219
New Supply							
Total Paper	23,747	25,197	27,323	27,232	28,277	29,973	29,650
Newsprint	8,051	8,510	9,268	9,165	9,307	9,959	9,797
Printing/Writing Papers	8,655	9,348	10,362	10,210	10,502	11,218	11,016
Uncoated Groundwood	1,053	1,069	1,217	1,163	1,219	1,306	1,310
Coated	2,572	2,767	3,039	3,041	3,045	3,240	3,168
Uncoated Free Sheet	3,824	4,198	4,676	4,584	4,769	5,163	5,098
Thin and Cotton Fiber	301	314	351	345	351	371	353
Bleached Bristols	905	1,000	1,079	1,077	1,118	1,138	1,087
Packaging and Ind. Conv. Papers	4,316	4,473	4,610	4,645	5,033	5,205	5,139
Unbleached Kraft	3,038	3,150	3,269	3,233	3,494	3,602	3,582
Other	1,278	1,323	1,341	1,412	1,539	1,603	1,557
Tissue	2,725	2,866	3,083	3,212	3,435	3,591	3,698
Total Paperboard	18,976	20,301	22,063	21,498	23,310	24,514	23,478
Unbleached Kraft	6,843	7,401	8,332	8,317	9,388	10,136	9,858
Semichemical	2,374	2,626	2,905	2,981	3,381	3,645	3,434
Bleached Board	2,621	2,771	2,994	2,999	3,202	3,419	3,213
Recycled	7,138	7,503	7,832	7,201	7,339	7,314	6,973
Construction and Other	2,917	2,972	2,791	2,827	3,073	3,105	2,972
Total All Grades, Excluding Products	45,640	48,470	52,177	51,557	54,660	57,592	56,100
Paper and Products	23,689	25,130	27,386	27,238	28,317	30,016	29,780
Paperboard and Products	18,871	20,168	21,940	21,369	22,961	24,300	23,216
Paper, Paperboard and Products	42,560	45,298	49,326	48,607	51,278	54,316	52,996
Total Including Products	45,477	48,270	52,117	51,434	54,351	57,421	55,968
Real G.D.P. – $ Bil., 1987 Prices	2,343.3	2,473.5	2,622.3	2,690.3	2,801.0	2,877.1	2,416.7
Ratio of New Supply to Real GDP							
Total Paper	10.134	10.187	10.419	10.122	10.095	10.418	12.269
Newsprint	3.436	3.440	3.534	3.407	3.323	3.461	4.054
Printing/Writing Papers	3.694	3.779	3.951	3.795	3.749	3.899	4.558
Uncoated Groundwood	0.449	0.432	0.464	0.432	0.435	0.454	0.542
Coated	1.098	1.119	1.159	1.130	1.087	1.126	1.311
Uncoated Free Sheet	1.632	1.697	1.783	1.704	1.703	1.795	2.109
Thin and Cotton Fiber	0.128	0.127	0.134	0.128	0.125	0.129	0.146
Bleached Bristols	0.386	0.404	0.411	0.400	0.399	0.396	0.450
Packaging and Ind. Conv. Papers	1.842	1.808	1.758	1.727	1.797	1.809	2.126
Unbleached Kraft	1.296	1.273	1.247	1.202	1.247	1.252	1.482
Other	0.545	0.535	0.511	0.525	0.549	0.557	0.644
Tissue	1.163	1.159	1.176	1.194	1.226	1.248	1.530
Total Paperboard	8.098	8.207	8.414	7.991	8.322	8.520	9.715
Unbleached Kraft	2.920	2.992	3.177	3.091	3.352	3.523	4.079
Semichemical	1.013	1.062	1.108	1.108	1.207	1.267	1.421
Bleached Board	1.119	1.120	1.142	1.115	1.143	1.188	1.329
Recycled	3.046	3.033	2.987	2.677	2.620	2.542	2.885
Construction and Other	1.245	1.202	1.064	1.051	1.097	1.079	1.230
Total All Grades. Excluding Products	19.477	19.596	19.897	19.164	19.514	20.017	23.213
Paper and Products	10.109	10.160	10.444	10.125	10.110	10.433	12.323
Paperboard and Products	8.053	8.154	8.367	7.943	8.197	8.446	9.606
Paper, Paperboard and Products	18.162	18.313	18.810	18.068	18.307	18.879	21.929
Total Including Products	19.407	19.515	19.875	19.118	19.404	19.958	23.159

NOTE: New Supply based on Tables XXXIII and XXXIV imports/exports. * Includes about 5% paper. E – Estimated by API.

TABLE VIII (Cont.)

PAPER AND PAPERBOARD

PRODUCTION, NEW SUPPLY AND NEW SUPPLY/REAL G.D.P.

1954–1991

000 Short Tons	1971	1972	1973	1974	1975	1976	1977
Production – Total	53,162	57,435	59,901	59,041	50,976	58,327	60,040
Total Paper	23,722	25,359	26,797	26,863	23,260	26,577	27,721
Total Paperboard	26,019	28,484	29,550	28,894	24,737	28,415	28,935
Unbleached Kraft	11,800	13,269	13,563	13,333	11,543	13,332	13,651
Semichemical	3,700	4,010	4,260	4,175	3,702	4,105	4,264
Bleached Kraft	3,363	3,667	3,842	3,752	3,324	3,820	3,703
Recycled	7,156	7,538	7,885	7,634	6,168	7,158	7,317
Wet Machine Board	138	148	149	144	115	130	129
Building Paper	1,837	1,915	1,858	1,845	1,615	1,771	1,852
Insulating Board	1,446	1,529	1,547	1,295	1,249	1,434	1,403
New Supply							
Total Paper	30,084	32,035	34,028	34,175	28,263	32,513	34,208
Newsprint	9,773	10,269	10,877	10,955	9,048	9,917	10,081
Printing/Writing Papers	11,295	12,312	13,495	13,571	10,933	13,281	14,281
Uncoated Groundwood	1,324	1,334	1,388	1,460	1,317	1,588	1,794
Coated	3,124	3,412	3,711	3,693	3,037	3,842	4,223
Uncoated Free Sheet	5,413	5,996	6,729	6,794	5,295	6,439	6,793
Thin and Cotton Fiber	338	390	410	401	334	363	384
Bleached Bristols	1,096	1,180	1,257	1,223	950	1,049	1,087
Packaging and Ind. Conv. Papers	5,199	5,497	5,640	5,587	4,334	5,151	5,577
Unbleached Kraft	3,598	3,791	3,916	3,951 RS	3,070	3,598	3,720
Other	1,601	1,706	1,724	1,636 RS	1,264	1,553	1,857
Tissue	3,817	3,957	4,016	4,062	3,948	4,164	4,269
Total Paperboard	23,921	26,261	27,567	26,779	23,292	26,720	27,132
Unbleached Kraft	9,976	11,382	11,972	11,760	10,485	12,089	12,376
Semichemical	3,596	3,898	4,153	4,030	3,587	3,986	4,142
Bleached Board	3,207	3,449	3,561	3,432	3,068	3,514	3,314
Recycled	7,142	7,532	7,881	7,557	6,152	7,131	7,300
Construction and Other	3,467	3,650	3,604	3,301	3,001	3,367	3,464
Total All Grades, Excluding Products	57,472	61,946	65,199	64,255	54,556	62,600	64,804
Paper and Products	30,389	32,265	34,060	33,740	28,317	32,509	34,099
Paperboard and Products	23,595	26,123	27,340	26,267	22,792	26,137	26,678
Paper, Paperboard and Products	53,984	58,388	61,400	60,007	51,109	58,646	60,777
Total Including Products	57,451	62,038	65,004	63,308	54,110	62,013	64,241
Real G.D.P. – $ Bil., 1987 Prices	2,959.3	3,107.1	3,268.6	3,248.1	3,221.7	3,380.8	3,533.3
Ratio of New Supply to Real GDP							
Total Paper	10.166	10.310	10.411	10.522	8.773	11.502	9.682
Newsprint	3.302	3.305	3.328	3.373	2.808	3.508	2.853
Printing/Writing Papers	3.817	3.963	4.129	4.178	3.394	4.698	4.042
Uncoated Groundwood	0.447	0.429	0.425	0.449	0.409	0.562	0.508
Coated	1.056	1.098	1.135	1.137	0.943	1.359	1.195
Uncoated Free Sheet	1.829	1.930	2.059	2.092	1.644	2.278	1.923
Thin and Cotton Fiber	0.114	0.126	0.125	0.123	0.104	0.128	0.109
Bleached Bristols	0.370	0.380	0.385	0.377	0.295	0.371	0.308
Packaging and Ind. Conv. Papers	1.757	1.769	1.726	1.720	1.345	1.822	1.578
Unbleached Kraft	1.216	1.220	1.198	1.216	0.953	1.273	1.053
Other	0.541	0.549	0.527	0.504	0.392	0.549	0.526
Tissue	1.290	1.274	1.229	1.251	1.225	1.473	1.208
Total Paperboard	8.083	8.452	8.434	8.245	7.230	9.453	7.679
Unbleached Kraft	3.371	3.663	3.663	3.621	3.254	4.277	3.503
Semichemical	1.215	1.255	1.271	1.241	1.113	1.410	1.172
Bleached Board	1.084	1.110	1.089	1.057	0.952	1.243	0.938
Recycled	2.413	2.424	2.411	2.327	1.910	2.523	2.066
Construction and Other	1.172	1.175	1.103	1.016	0.931	1.191	0.980
Total All Grades, Excluding Products	19.421	19.937	19.947	19.782	16.934	22.146	18.341
Paper and Products	10.269	10.384	10.420	10.388	8.789	11.501	9.651
Paperboard and Products	7.973	8.408	8.364	8.087	7.075	9.246	7.550
Paper, Paperboard and Products	18.242	18.792	18.785	18.474	15.864	20.747	17.201
Total Including Products	19.414	19.967	19.887	19.491	16.795	21.938	18.182

RS – Revised Series

TABLE VIII (Cont.)

PAPER AND PAPERBOARD

PRODUCTION, NEW SUPPLY AND NEW SUPPLY/REAL G.D.P.

1964–1991

000 Short Tons	1978	1979	1980	1981	1982	1983	1984
Production – Total	62,048	64,345	63,600	64,259	60,951	66,748	70,248
Total Paper	28,320	29,666	30,116	30,901	30,245	32,803	34,446
Total Paperboard	30,252	31,404	30,926	31,208	29,044	32,145	34,002
Unbleached Kraft	14,373	15,151	15,295	15,602	14,535	16,122	17,185
Semichemical	4,439	4,689	4,724	4,719	4,389	4,730	5,169
Bleached Kraft	3,955	3,973	3,836	3,886	3,644	3,895	4,011
Recycled	7,485	7,591	7,071	7,001	6,476	7,398	7,637
Wet Machine Board	136	144	138	160	129	140	140
Building Paper	1,915	1,868	1,369	1,144	798	760	700
Insulating Board	1,425	1,263	1,051	843	735	900	960
New Supply							
Total Paper	35,992	37,450	37,126	37,547	36,610	40,216	43,556
Newsprint 1/	10,788	11,159	11,377	11,694	10,948	11,597	12,722
Printing/Writing Papers 1/	15,244	16,080	16,124	16,139	16,234	18,508	20,473
Uncoated Groundwood	1,907	2,123	2,086	2,001	2,068	2,414	2,833
Coated	4,540	4,588	4,644	4,843	4,979	5,799	6,592
Uncoated Free Sheet	7,230	7,891	8,015	7,870	7,896	8,889	9,546
Thin and Cotton Fiber	435	468	415	439	394	423	478
Bleached Bristols	1,132	1,010	964	986	897	983	1,024
Packaging and Ind. Conv. Papers	5,754	5,701	5,243	5,241	5,007	5,327	5,427
Unbleached Kraft	3,884	3,935	3,707	3,654	3,347	3,431	3,455
Other	1,870 *	1,766	1,536	1,587	1,660	1,896	1,972
Tissue	4,206	4,510	4,382	4,473	4,421	4,784	4,934
Total Paperboard 2/	28,311	29,225	27,689	28,717	26,504	29,301	31,515
Unbleached Kraft	12,938	13,532	12,958	13,764	12,639	13,890	15,169
Semichemical	4,320	4,624	4,433	4,616	4,251	4,607	5,124
Bleached Board	3,522	3,477	3,267	3,330	3,119	3,380	3,533
Recycled	7,531	7,592	7,011	7,007	6,495	7,424	7,689
Construction and Other	3,737	3,598	2,968	2,468	2,025	2,210	2,222
Total All Grades, Excluding Products	68,040	70,273	67,783	68,732	65,139	71,727	77,293
Paper and Products	36,177	37,383	37,028	37,333	36,562	40,032	43,647
Paperboard and Products	27,873	28,815	27,172	28,156	26,143	28,925	31,068
Paper, Paperboard and Products	64,050	66,198	64,200	65,489	62,705	68,957	74,715
Total All Grades, Including Products	67,787	69,796	67,168	67,957	64,730	71,167	76,937
Real G.D.P. – $ Bil., 1987 Prices	3,703.5	3,796.8	3,776.3	3,843.1	3,760.3	3,906.6	4,148.5
Ratio of New Supply to Real GDP							
Total Paper	9.718	9.864	9.831	9.770	9.736	10.294	10.499
Newsprint	2.913	2.939	3.013	3.043	2.911	2.969	3.067
Printing/Writing Papers	4.116	4.235	4.270	4.199	4.317	4.738	4.935
Uncoated Groundwood	0.515	0.559	0.552	0.521	0.550	0.618	0.683
Coated	1.226	1.208	1.230	1.260	1.324	1.484	1.589
Uncoated Free Sheet	1.952	2.078	2.122	2.048	2.100	2.275	2.301
Thin and Cotton Fiber	0.117	0.123	0.110	0.114	0.105	0.108	0.115
Bleached Bristols	0.306	0.266	0.255	0.257	0.239	0.252	0.247
Packaging and Ind. Conv. Papers	1.554	1.502	1.388	1.364	1.332	1.364	1.308
Unbleached Kraft	1.049	1.036	0.982	0.951	0.890	0.878	0.833
Other	0.505	0.465	0.407	0.413	0.441	0.485	0.475
Tissue	1.136	1.188	1.160	1.164	1.176	1.225	1.189
Total Paperboard	7.644	7.697	7.332	7.472	7.048	7.500	7.597
Unbleach Kraft	3.493	3.564	3.431	3.581	3.361	3.556	3.657
Semichemical	1.166	1.218	1.174	1.201	1.130	1.179	1.235
Bleached Board	0.951	0.916	0.870	0.866	0.829	0.865	0.852
Recycled	2.033	2.000	1.857	1.823	1.727	1.900	1.853
Construction and Other	1.009	0.948	0.786	0.642	0.539	0.566	0.536
Total All Grades, Excluding Products	18.372	18.508	17.950	17.885	17.323	18.360	18.632
Paper and Products 3/	9.768	9.846	9.805	9.714	9.723	10.247	10.521
Paperboard and Products 3/	7.528	7.589	7.195	7.326	6.952	7.404	7.489
Paper, Paperboard and Products 3/	17.294	17.435	17.001	17.041	16.676	17.651	18.010
Total All Grades, Including Products /2	18.303	18.383	17.787	17.683	17.214	18.217	18.546

1/ – New Supply: Production plus imports from Table XXXIII less exports from Table XII.
2/ – New Supply: Production plus imports from Table XI less exports from Table XXXV.
3/ – New Supply: Production plus imports from Table XI less exports from Table XII.
Note: New supply of other grades based on imports from Table XI and exports from Table XII (Census data). * Data overstated by about 10%.

TABLE VIII (Cont.)

PAPER AND PAPERBOARD

PRODUCTION, NEW SUPPLY AND NEW SUPPLY/REAL G.D.P.

1964–1991

000 Short Tons	1985	1986	1987	1988	1989	1990 R	1991 P
Production – Total	68,683	72,505	75,949	78,085	78,356	80,344	81,064
Total Paper	34,061	35,550	36,917	38,352	38,266	39,359	39,078
Total Paperboard	32,922	35,355	37,442	38,233	38,520	39,415	40,416
Unbleached Kraft	16,368	17,680	18,898	19,140	19,490	20,357	20,960
Semichemical	5,088	5,376	5,536	5,664	5,691	5,710	5,711
Bleached Kraft	3,911	4,207	4,406	4,511	4,522	4,399	4,572
Recycled	7,555	8,092	8,602	8,918	8,817	8,949	9,173
Wet Machine Board E	130	130	120	100	100	100	100
Building Paper E	680	600	600	600	600	600	600
Insulating Board E	890	870	870	800	870	870	870
New Supply							
Total Paper R	43,547	45,303	47,489	49,092	48,295	49,415	47,422
Newsprint R	12,748	12,924	13,691	13,562	13,128	13,335	12,508
Printing/Writing Papers	20,658	22,134	23,487	25,006	24,449	25,463	24,651
Uncoated Groundwood	2,960	3,094	3,196	3,465	3,528	3,713	3,552
Coated	6,289	6,686	7,433	8,059	7,821	8,253	7,876
Uncoated Free Sheet	10,005	10,836	11,331	11,810	11,542	12,023	11,823
Thin and Cotton Fiber	413	449	450	472	383	321	262
Bleached Bristols	991	1,069	1,078	1,199	1,175	1,152	1,137
Packaging and Ind. Conv. Papers	5,163	5,106	4,990	5,030	4,982	4,718	4,591
Unbleached Kraft	3,242	3,153	2,919	2,852	2,796	2,499	2,374
Other Packg. and Indust. Conv.	1,921	1,953	2,071	2,178	2,186	2,219	2,217
Tissue	4,978	5,140	5,321	5,494	5,737	5,899	5,672
Total Paperboard	30,595	32,541	34,613	35,442	35,821	36,427	36,873
Unbleached Kraft	14,589	15,513	16,676	16,930	17,212	17,780	17,794
Semichemical	4,964	5,263	5,472	5,670	5,672	5,679	5,641
Bleached Board	3,445	3,639	3,787	3,883	3,828	3,667	3,829
Recycled	7,597	8,126	8,677	8,958	9,109	9,301	9,609
Construction and Other	2,048	1,845	1,792	1,691	1,723	1,701	1,644
Total All Grades, Excluding Products	76,190	79,689	83,894	86,225	85,839	87,544	85,939
Paper and Products	43,941	45,713	47,828	49,291	48,612	49,674	47,615
Paperboard and Products	30,144	32,196	33,862	34,522	34,820	35,320	35,642
Paper, Paperboard and Products	74,085	77,909	81,690	83,813	83,432	84,994	83,257
Total All Grades, Including Products	76,133	79,754	83,482	85,503	85,156	86,696	84,901
Real G.D.P. – $ Bil., 1987 Prices	4,279.8	4,404.5	4,540.0	4,718.6	4,838.0	4,877.5	4,821.0
Ratio of New Supply to Real GDP							
Total Paper	10.175	10.286	10.460	10.404	9.982	10.131	9.837
Newsprint	2.979	2.934	3.016	2.874	2.713	2.734	2.595
Printing/Writing Papers	4.827	5.025	5.173	5.299	5.054	5.220	5.113
Uncoated Groundwood	0.692	0.702	0.704	0.734	0.729	0.761	0.737
Coated	1.469	1.518	1.637	1.708	1.617	1.692	1.634
Uncoated Free Sheet	2.338	2.460	2.496	2.503	2.386	2.465	2.452
Thin and Cotton Fiber	0.096	0.102	0.099	0.100	0.079	0.066	0.054
Bleached Bristols	0.232	0.243	0.237	0.254	0.243	0.236	0.236
Packaging and Ind. Conv. Papers	1.206	1.159	1.099	1.066	1.030	0.967	0.952
Unbleached Kraft	0.758	0.716	0.643	0.604	0.578	0.512	0.492
Other	0.449	0.443	0.456	0.462	0.452	0.455	0.460
Tissue	1.163	1.167	1.172	1.164	1.186	1.209	1.176
Total Paperboard	7.149	7.388	7.624	7.511	7.404	7.468	7.648
Unbleach Kraft	3.409	3.522	3.673	3.588	3.558	3.645	3.691
Semichemical	1.160	1.195	1.205	1.202	1.172	1.164	1.170
Bleached Board	0.805	0.826	0.834	0.823	0.791	0.752	0.794
Recycled	1.775	1.845	1.911	1.899	1.883	1.907	1.993
Construction and Other	0.478	0.419	0.395	0.358	0.356	0.349	0.341
Total All Grades, Excluding Products	17.802	18.093	18.479	18.273	17.743	17.948	17.826
Paper and Products	10.267	10.379	10.535	10.448	10.048	10.184	9.877
Paperboard and Products	7.043	7.310	7.459	7.316	7.197	7.241	7.393
Paper, Paperboard and Products	17.310	17.689	17.993	17.762	17.245	17.426	17.270
Total All Grades, Including Products	17.789	18.107	18.388	18.120	17.601	17.775	17.611

R – Revised P – Preliminary E – Estimated by API

TABLE IX

UNITED STATES CAPACITY TO PRODUCE PAPER AND BOARD

1979 – 1994

(THOUSANDS OF TONS)

	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL PAPER AND BOARD	69,035	70,715	72,257	73,118	74,018	75,942	76,622	77,922
Total Paper	31,180	32,659	33,707	34,665	35,675	37,104	37,581	38,013
Newsprint	4,199	4,836	5,457	5,654	5,774	5,851	5,788	5,804
Total Printing, Writing & Related	16,058	16,798	17,301	17,809	18,633	19,889	20,462	20,980
Groundwood Uncoated	1,541	1,624	1,625	1,655	1,710	1,704	1,710	1,685
Coated Papers – Total	4,822	4,984	5,292	5,516	5,995	6,557	6,665	6,743
Coated Groundwood	2,554	2,762	3,047	3,242	3,522	3,766	3,820	3,799
Coated Free Sheet	2,268	2,222	2,245	2,274	2,473	2,791	2,845	2,944
Uncoated Free Sheet	8,152	8,645	8,828	9,039	9,354	10,058	10,515	11,023
Cotton Fiber	134	139	147	161	162	181	187	192
Thin	393	382	374	369	347	338	326	312
Solid Bleached Bristols	1,016	1,024	1,035	1,069	1,065	1,051	1,059	1,025
Total Packaging & Ind. Conv.	6,053	6,071	5,914	6,077	6,078	6,088	5,986	5,757
Unbleached Kraft	4,098	4,110	3,961	4,091	4,065	3,972	3,808	3,579
Bleached Pkg. & Ind. Conv.	1,105	1,095	1,083	1,080	1,119	1,148	1,104	1,092
Specialty Pkg.	N.A.	N.A.	554	553	569	599	519	554
Bleached Pkg.	N.A.	N.A.	529	527	550	549	585	538
Special Industrial	850	866	870	906	894	968	1,074	1,086
Tissue	4,870	4,954	5,035	5,125	5,190	5,276	5,345	5,472
Total Paperboard	33,436	33,709	34,467	35,421	35,452	35,992	36,720	37,765
Total Unbleached Kraft Packaging & Industrial Converting	15,546	15,967	16,738	17,401	17,510	17,834	18,144	18,622
Linerboard	14,199	14,586	15,372	16,032	16,217	16,565	16,739	17,175
Folding Boxboard	827	852	799	860	800	792	905	946
Other	520	529	567	509	493	477	500	501
Total Bleached Packaging Paperboard	4,268	4,181	4,141	4,123	4,130	4,185	4,370	4,577
Folding Boxboard	2,061	1,954	1,966	1,988	1,992	2,095	2,223	2,341
Milk Carton & Food Service	1,877	1,865	1,839	1,812	1,812	1,771	1,843	1,926
Linerboard	137	116	106	104	111	119	131	135
Other	193	246	230	219	215	200	173	175
Semichemical Paperboard	4,864	4,946	4,988	5,207	5,119	5,252	5,411	5,557
Total Recycled Paperboard	8,758	8,615	8,600	8,690	8,693	8,721	8,795	9,009
Linerboard	432	509	463	379	395	393	422	467
Corrugating Medium	1,392	1,330	1,349	1,478	1,427	1,524	1,523	1,580
Container Chip & Filler	287	283	309	273	247	228	53 @	42 @
Folding	2,615	2,593	2,633	2,676	2,671	2,626	2,640	2,662
Set-up	404	349	335	331	324	296	289	272
Gypsum Wall Board Facing	1,273	1,238	1,251	1,255	1,217	1,249	1,265	1,349
Other	2,355	2,313	2,260	2,298	2,412	2,405	2,603 @	2,637 @
Total Paper and Paperboard	64,616	66,368	68,174	70,088	71,127	73,096	74,301	75,778
Total Wet Machine Board	154	163	157	160	173	170	160	154
Total Construction Paper & Board	4,265	4,184	3,926	2,872	2,718	2,676	2,161	1,990
Construction Paper	2,380	2,345	2,111	1,306	1,234	1,227	937	834
Insulating Board	1,985	1,839	1,815	1,566	1,484	1,449	1,224	1,156
Total Hard Pressed Board ##	2,556 #	2,556	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

SOURCE: American Paper Institute, Paper, Paperboard and Wood Pulp Capacity Survey, various issues to December 1991.

– As reported in 1976 Capacity Survey. N.A. – Not Available.

– Hard pressed Board not included in Total Paper and Board. @ – See page 31. R – Revised.

TABLE IX (Cont.)

UNITED STATES CAPACITY TO PRODUCE PAPER AND BOARD

1979 – 1994

(THOUSANDS OF TONS)

	1987	1988	1989	1990R	1991F	1992F	1993F	1994F
TOTAL PAPER AND BOARD	80,341	82,662	84,316	86,514	89,056	91,062	92,703	93,979
Total Paper	39,081	40,211	41,185	42,315	43,766	44,981	45,696	46,382
Newsprint	6,006	6,115	6,296	6,792	7,069	7,288	7,380	7,409
Total Printing, Writing & Related	22,078	23,027	23,637	24,149	25,119	25,945	26,435	26,983
Groundwood Uncoated	1,653	1,735	1,874	1,946	1,923	1,930	1,933	1,934
Coated Papers – Total	7,385	7,783	7,844	8,090	8,457	8,731	8,983	9,163
Coated Groundwood	4,136	4,347	4,341	4,414	4,428	4,463	4,520	4,547
Coated Free Sheet	3,229	3,436	3,503	3,676	4,031	4,268	4,463	4,616
Uncoated Free Sheet	11,493	11,853	12,092	12,335	12,981	13,482	13,709	14,072
Cotton Fiber	198	203	202	202	204	205	205	205
Thin	290	282	281	262	255	255	255	255
Solid Bleached Bristols	1,079	1,171	1,345	1,314	1,299	1,342	1,350	1,354
Total Packaging & Ind. Conv.	5,492	5,402	5,435	5,369	5,337	5,358	5,345	5,337
Unbleached Kraft	3,295	2,908	2,809	2,710	2,703	2,690	2,653	2,633
Bleached Pkg. & Ind. Conv.	1,066	1,077	1,155	1,150	1,176	1,195	1,210	1,216
Specialty Pkg.	565	638	644	661	692	710	722	723
Bleached Pkg.	501	439	511	489	484	485	488	493
Special Industrial	1,131	1,417	1,471	1,509	1,458	1,473	1,482	1,488
Tissue	5,505	5,667	5,798	6,005	6,241	6,390	6,536	6,633
Total Paperboard	39,106	40,321	40,993	42,078	43,194	43,985	44,908	45,518
Total Unbleached Kraft Packaging & Industrial Converting	19,422	20,269	20,878	21,438	21,986	22,353	22,369	22,562
Linerboard	17,949	18,705	19,192	19,743	19,989	20,309	20,293	20,466
Folding Boxboard	1,000	1,055	1,183	1,193	1,465	1,511	1,543	1,562
Other	473	509	503	502	532	533	533	534
Total Bleached Packaging Paperboard	4,734	4,732	4,716	4,706	4,886	4,967	5,122	5,353
Folding Boxboard	2,364	2,323	2,298	2,243	2,349	2,450	2,553	2,734
Milk Carton & Food Service	2,031	2,017	1,961	2,027	2,084	2,048	2,089	2,134
Linerboard	148	170	194	190	166	177	184	188
Other	191	222	263	246	287	292	296	297
Semichemical Paperboard	5,682	5,788	5,781	5,894	5,957	6,025	6,069	6,097
Total Recycled Paperboard	9,268	9,532	9,817	10,040	10,365	10,640	11,348	11,506
Linerboard	515	494	458	489	673	848	1,454	1,536
Corrugating Medium	1,685	1,947	2,042	2,228	2,227	2,251	2,263	2,275
Container Chip & Filler	40	35	**	**	**	**	**	**
Folding	2,661	2,601	2,569	2,674	2,810	2,878	2,958	3,018
Set-up	275	288	313	318	328	330	330	330
Gypsum Wall Board Facing	1,386	1,411	1,393	1,391	1,366	1,366	1,366	1,366
Other	2,706	2,756	2,842	2,940	2,961	2,967	2,977	2,981
Total Paper and Paperboard	78,187	80,532	82,158	84,393	86,960	88,966	90,604	91,880
Total Wet Machine Board	153	121	118	116	116	116	119	119
Total Construction Paper & Board	2,001	2,009	2,039	2,005	1,980	1,980	1,980	1,980
Construction Paper	822	830	826	833	835	835	835	835
Insulating Board	1,179	1,179	1,213	1,172	1,145	1,145	1,145	1,145

SOURCE: American Paper Institute, Paper, Paperboard and Wood Pulp Capacity Survey, various issues to December 1991.

F – Forecast as reported in December 1991 Capacity Survey.

@ – Reflects shift of 160,000 tons of a non–containerboard grade to "other" recycled paperboard.

** Container Chip and Filler Board included with Corrugating Medium.

TABLE X

WOOD PULP CAPACITY

1979 - 1994

(Thousands of Tons)

	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL ALL GRADES (1)	53,636	55,212	56,830	57,639	57,591	59,000	59,615	60,686
TOTAL EXCLUDING CONSTRUCTION	51,636	53,213	54,890	56,126	56,144	57,742	58,641	59,750
Dissolving and Special Alpha	1,551	1,590	1,598	1,606	1,525	1,487	1,454	1,399
Chemical Paper Grades Total	40,896	41,892	43,143	43,972	44,285	45,479	46,544	47,655
Sulfite, Paper Grades Total	2,004	1,909	1,855	1,780	1,789	1,750	1,738	1,703
Bleached Total	1,595	1,512	1,464	1,383	1,404	1,445	1,482	1,502
Unbleached	409	397	391	397	385	305	256	201
Sulfate and Soda Total	38,892	39,983	41,288	42,192	42,496	43,729	44,806	45,952
Bleached & Semi-Bleached Total	18,969	19,695	20,316	20,757	21,290	22,357	23,624	24,571
Hardwood	8,072	8,356	8,559	8,705	9,179	9,867	10,750	11,402
Softwood	10,897	11,339	11,757	12,052	12,111	12,490	12,874	13,169
Unbleached	19,923	20,288	20,972	21,435	21,206	21,372	21,182	21,381
Semichemical Total	4,553	4,601	4,597	4,734	4,489	4,625	4,650	4,631
Bleached	336	384	350	356	367	381	395	404
Unbleached	4,217	4,217	4,247	4,378	4,122	4,244	4,255	4,227
Mechanical Total (Groundwood)	6,573	7,068	7,434	7,293	7,261	7,380	6,938	6,994
For Paper and Board	4,573	5,069	5,494	5,780	5,814	6,122	5,964	6,058
Stone Groundwood	3,255	3,212	3,239	3,260	3,146	3,168	3,006	2,996
Refiner	507	486	489	472	480	501	459	402
Thermo-Mechanical	811	1,371	1,766	2,048	2,188	2,453	2,499	2,660
For Other Paper and Board	2,000	1,999	1,940	1,513	1,447	1,258	974	936
Stone and Refiner	594	647	651	628	576	469	269	269
Defibrated and Exploded	1,406	1,352	1,289	885	871	789	705	667
Screenings	63	61	58	34	31	29	29	7
MARKET PULP								
Total All Grades	6,334	6,802	6,971	7,080	7,414	7,530	7,989	8,039
Dissolving	1,551	1,576	1,579	1,598	1,519	1,487	1,446	1,395
Chemical Paper Grades	4,682	5,130	5,375	5,470	5,881	6,029	6,529	6,630
Sulfate	4,332	4,761	5,034	5,182	5,529	5,727	6,227	6,343
Bl. and Semi-Bleached	4,228	4,589	4,867	5,040	5,372	5,582	6,083	6,198
Unbleached	104	172	167	142	157	145	144	145
Sulfite	350	369	341	288	352	302	302	287
All Other	101	96	17	12	14	14	14	14

(1) Excludes defribrated and exploded wood pulp for hard pressed board.
R - Revised.

TABLE X (Cont.)

WOOD PULP CAPACITY

1979 - 1994

(Thousands of Tons)

	1987	1988	1989	1990 F	1991 F	1992 F	1993 F	1994 F
TOTAL ALL GRADES	62,077	63,756	65,026	65,985	67,402	68,977	69,306	69,890
TOTAL EXCLUDING CONSTRUCTION	61,173	62,951	64,289	65,367	66,796	68,371	68,700	69,284
Dissovling and Special Alpha	1,389	1,450	1,465	1,486	1,493	1,493	1,493	1,493
Chemical Paper Grades Total	48,825	50,278	51,430	52,250	53,670	55,323	55,687	56,257
Sulfite, Paper Grades Total	1,646	1,627	1,644	1,689	1,697	1,706	1,655	1,651
Bleached Total	1,460	1,442	1,459	N.A.	N.A.	N.A.	N.A.	N.A.
Unbleached	186	185	185	N.A.	N.A.	N.A.	N.A.	N.A.
Sulfate and Soda Total	47,179	48,651	49,786	50,561	51,973	53,617	54,032	54,606
Bleached & Semi-Bleached Total	25,446	26,506	27,321	27,819	29,070	30,555	31,279	31,855
Hardwood	11,823	12,450	13,125	13,407	14,047	14,919	15,319	15,605
Softwood	13,623	14,056	14,196	14,412	15,023	15,636	15,960	16,250
Unbleached	21,733	22,145	22,465	22,742	22,903	23,062	22,753	22,751
Semichemical Total	4,697	4,788	4,753	4,669	4,547	4,473	4,473	4,473
Bleached	408	369	376	366	329	327	327	327
Unbleached	4,289	4,419	4,377	4,303	4,218	4,146	4,146	4,146
Mechanical Total (Groundwood)	7,160	7,236	7,373	7,575	7,687	7,683	7,648	7,662
For Paper and Board	6,256	6,431	6,636	6,957	7,081	7,077	7,042	7,056
Stone Groundwood	2,942	2,986	3,037	3,073	3,079	3,082	3,095	3,106
Refiner	348	345	354	347	334	315	315	315
Thermo-Mechanical	2,966	3,100	3,245	3,537	3,668	3,680	3,632	3,635
For Other Paper and Board	904	805	737	618	606	606	606	606
Stone and Refiner	275	222	220	161	161	161	161	161
Defibrated and Exploded	629	583	517	457	445	445	445	445
Screenings	6	4	4	5	5	5	5	5
MARKET PULP								
Total All Grades	8,505	8,908	9,046	9,527	10,189	10,815	11,085	11,140
Dissolving	1,388	1,450	1,465	1,499	1,500	1,507	1,509	1,517
Chemical Paper Grades	7,103	7,451	7,581	8,028	8,689	9,308	9,576	9,623
Sulfate	6,819	7,178	7,319	7,733	8,380	8,999	9,262	9,309
Bl. and Semi-Bleached	6,651	6,991	7,151	7,556	8,198	8,806	9,067	9,114
Unbleached	168	187	168	177	182	193	195	195
Sulfite	284	273	262	295	309	309	314	315
All Other	14	7	0	0	0	0	0	0

F - Forecast

TABLE XI

IMPORTS

WOOD PULP, PAPER, PAPERBOARD AND PRODUCTS

1986 - 1991

	1986		1987		1988	
	Tons	$ 000	Tons	$ 000	Tons	$000
TOTAL ALL GRADES	16,617,526	7,860,746	17,814,681	9,016,321	18,309,754	10,692,833
WOOD PULP, ALL GRADES, TOTAL	4,581,760	1,601,378	4,850,238	2,069,394	5,038,158	2,663,424
Dissolving and Special Alpha	254,699	87,725	197,531	80,701	248,456	131,587
Sulfite, Paper Grades, Total	482,205	168,299	508,560	203,891	385,081	201,455
Bleached	350,520	129,490	352,543	158,234	331,899	179,673
Unbleached	131,685	38,809	156,017	45,657	53,182	21,782
Sulfate and Soda, Paper Grades, Total	3,737,348	1,312,408	3,947,335	1,718,792	4,033,856	2,198,263
Bleached	3,570,693	1,256,971	3,795,005	1,656,510	3,859,586	2,110,794
Semi-Bleached	54,385	20,645	56,973	24,804	66,930	35,456
Unbleached	112,270	34,792	95,357	37,478	107,340	52,013
Groundwood	51,921	13,010	92,558	28,532	237,971	78,777
Other*	55,587	19,936	104,254	37,478	132,794	53,342
WASTE PAPER	99,313	11,182	127,398	19,231	161,367	27,361
PAPER, PAPERBOARD AND PRODUCTS, TOTAL	11,936,453	6,035,848	12,837,045	6,927,696	13,110,229	8,002,048
PAPER, PAPERBOARD AND OTHER, TOTAL	11,546,546	5,247,127	12,435,486	5,995,122	12,727,246	7,038,168
PAPER PLUS PAPERBOARD	11,206,902	5,139,734	12,126,038	5,896,164	12,404,801	6,929,757
PAPER, TOTAL	10,925,453	5,051,916	11,765,207	5,768,703	12,063,790	6,799,044
Newsprint	8,587,507	3,682,351	8,986,548	4,121,327	8,801,503	4,569,853
Printing & Writing Paper, Total	2,029,303	1,179,802	2,410,217	1,412,458	2,859,529	1,948,907
Groundwood, Uncoated	1,028,231	531,149	1,269,774	654,767	1,362,642	792,881
Coated and Impregnated Paper	501,382	359,495	674,531	467,865	797,765	641,466
Uncoated Free Sheet	453,639	254,627	417,395	249,943	591,829	414,326
Uncoated Book	223,798	126,278	210,624	119,775	258,146	175,746
Writing Papers	229,841	128,349	206,771	130,168	333,683	238,580
Other Fine Paper	-	-	-	-	-	-
Thin Paper	45,351	33,831	47,567	38,831	55,774	48,804
Bristols	700	700	950	1,052	51,519	51,430
Packaging & Industrial Paper, Total	242,570	146,211	310,321	191,619	343,197	231,796
Unbleached Kraft	115,008	42,650	168,420	69,828	161,708	76,116
Other Packaging & Converting	101,841	63,002	107,904	65,428	146,120	94,119
Glassine & Greaseproof	15,158	20,822	21,130	31,230	22,601	34,611
Vegetable Parchment	1,412	2,000	1,488	2,398	1,611	2,941
Special Industrial Paper	9,151	17,737	11,379	22,735	11,157	24,009
Non-Kraft Wrapping	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Tissue Paper	66,073	43,552	58,121	43,299	59,561	48,488
PAPERBOARD, TOTAL	281,449	87,818	360,831	127,461	341,011	130,713
Test or Containerboard	78,063	25,596	80,981	29,352	85,682	36,145
Semichemical Corrugating	99,062	22,092	128,636	33,898	142,490	43,596
Other Paperboard	104,324	40,130	151,214	64,211	112,839	50,972
WET MACHINE BOARD	3,235	2,525	3,463	2,638	4,239	3,780
CONSTRUCTION PAPER & BOARD, TOTAL	336,409	104,868	305,985	96,320	318,206	104,631
Building Paper	202,336	59,639	198,783	56,532	192,498	49,454
Insulating and Other Building Board	134,073	45,229	107,202	39,788	125,708	55,177
PAPER AND PAPERBOARD PRODUCTS, TOTAL	389,907	788,721	401,559	932,574	382,983	963,880
PAPER PRODUCTS, TOTAL	361,517	730,257	368,179	866,121	345,817	895,813
Printing & Book Paper	49,474	198,654	55,943	248,208	51,134	247,337
Writing & Related Paper	203,200	416,344	234,725	508,182	241,695	557,631
Special Industrial Paper	40,243	53,154	22,952	55,886	16,415	47,886
Tissue Paper	68,600	62,105	54,559	53,845	36,573	42,959
PAPERBOARD PRODUCTS, TOTAL	28,390	58,464	33,380	66,453	37,166	68,067

* Includes Mixtures and Screenings ** Included with Sulfate Pulp Imports

NOTE: Dollar figures for the value of shipments for which no tonnage figures were given are shown below. They are not included in the subtotals, but are in the Total All Grades: ($ 000) $212,338 $201,453 $177,683

TABLE XI (Cont'd)

IMPORTS

WOOD PULP, PAPER, PAPERBOARD AND PRODUCTS

1986 - 1991

	1989		1990		1991	
	Tons	$000	Tons	$000	Tons	$000
TOTAL ALL GRADES	18,276,870	11,343,301	18,164,075	11,284,336	17,285,869	10,085,793
WOOD PULP, ALL GRADES, TOTAL	5,004,366	2,980,197	4,893,355	2,831,327	4,996,517	2,131,711
Dissolving and Special Alpha	284,072	183,680	221,978	132,821	172,886	89,453
Sulfite, Paper Grades, Total	397,849	239,464	319,833	190,626	4,196,452	1,774,220
Bleached	358,284	218,859	290,368	176,391	4,084,230	1,730,934
Unbleached	39,565	20,605	29,465	14,235	112,222	43,287
Sulfate and Soda, Paper Grades, Total	3,971,850	2,427,698	4,006,085	2,375,955	307,417	152,731
Bleached	3,753,249	2,303,180	3,832,214	2,283,797	281,807	143,108
Semi-Bleached	131,816	79,753	79,553	48,789	#	#
Unbleached	86,785	44,765	94,318	43,369	25,610	9,623
Groundwood	181,049	63,939	155,629	59,766	139,518	58,292
Other *	169,546	65,416	189,830	72,160	180,244	57,015
WASTE PAPER	172,575	33,197	122,539	26,349	121,932	24,674
PAPER, PAPERBOARD AND PRODUCTS, TOTAL	13,099,929	8,329,907	13,148,181	8,426,660	12,167,420	7,929,408
PAPER, PAPERBOARD AND OTHER, TOTAL	12,537,471	7,231,649	12,728,761	7,426,949	11,776,020	6,953,552
PAPER PLUS PAPERBOARD	12,347,746	7,181,245	12,587,519	7,384,297	11,682,293	6,922,589
PAPER, TOTAL	11,814,260	6,900,798	11,961,306	7,077,036	10,909,640	6,587,222
Newsprint	8,553,401	4,379,613	8,299,557	4,247,131	7,490,016	3,978,716
Printing & Writing Paper, Total	2,732,976	1,996,140	3,104,863	2,248,424	2,934,786	2,074,526
Groundwood, Uncoated	1,304,114	817,785	1,337,581	843,550	1,369,279	861,951
Coated and Impregnated Paper	774,022	632,484	936,046	749,082	794,099	631,765
Uncoated Free Sheet	583,077	462,404	752,447	564,479	674,870	467,925
Writing Papers	583,077	462,404	752,447	564,479	544,668	344,971
Other Fine Paper	-	-	-	-	130,202	122,954
Thin Paper	12,711	15,200	11,365	14,296	14,557	17,514
Bristols	59,052	68,267	67,424	77,017	81,981	95,371
Packaging & Industrial Paper, Total	407,086	414,354	425,697	462,237	415,147	470,784
Unbleached Kraft	239,303	116,011	235,352	116,655	230,616	111,981
Other Packaging & Converting	19,012	18,675	22,638	22,841	34,696	36,189
Glassine & Greaseproof	20,147	31,828	22,059	34,607	17,686	27,540
Vegetable Parchment	1,695	3,167	1,514	2,953	1,773	3,698
Special Industrial Paper	126,088	243,395	143,175	283,812	128,763	289,346
Non-Kraft Wrapping	841	1,278	959	1,369	1,613	2,031
Tissue Paper	120,797	110,691	131,189	119,244	69,691	63,196
PAPERBOARD, TOTAL	533,486	280,447	626,213	307,261	772,653	335,367
Test or Containerboard	85,048	34,401	113,629	48,929	156,701	58,384
Semichemical Corrugating	118,176	36,462	111,935	31,152	100,119	23,667
Other Paperboard	330,262	209,584	400,649	227,180	515,833	253,316
WET MACHINE BOARD	606	580	1,132	991	930	857
CONSTRUCTION PAPER & BOARD, TOTAL	189,119	49,824	140,110	41,661	92,797	30,106
Building Paper	189,119	49,824	140,110	41,661	92,797	30,106
Insulating and Other Building Board	***	***	***	***	***	***
PAPER AND PAPERBOARD PRODUCTS, TOTAL	562,458	1,098,258	419,420	999,711	391,400	975,856
PAPER PRODUCTS, TOTAL	470,472	924,729	313,807	807,967	290,256	779,766
Printing & Book Paper	47,246	224,696	47,403	240,451	43,065	241,231
Writing & Related Paper	93,996	206,444	69,168	186,096	54,691	183,869
Special Industrial Paper	197,876	190,429	114,888	228,453	118,981	240,543
Tissue Paper	131,354	303,160	82,348	152,967	72,716	122,991
PAPERBOARD PRODUCTS, TOTAL	91,986	173,529	105,613	191,744	101,144	196,090

* Includes Mixtures and Screenings ** Included with Sulfate Pulp Imports *** Transferred to SIC 24 # Included in Bleached

NOTE: Dollar figures for the value of shipments for which no tonnage figures were given are shown below. They are not included in the subtotals, but are in the Total All grades: ($ 000) $136,624 $136,809 140,540

Chart 7

U.S. IMPORTS EXCLUDING NEWSPRINT

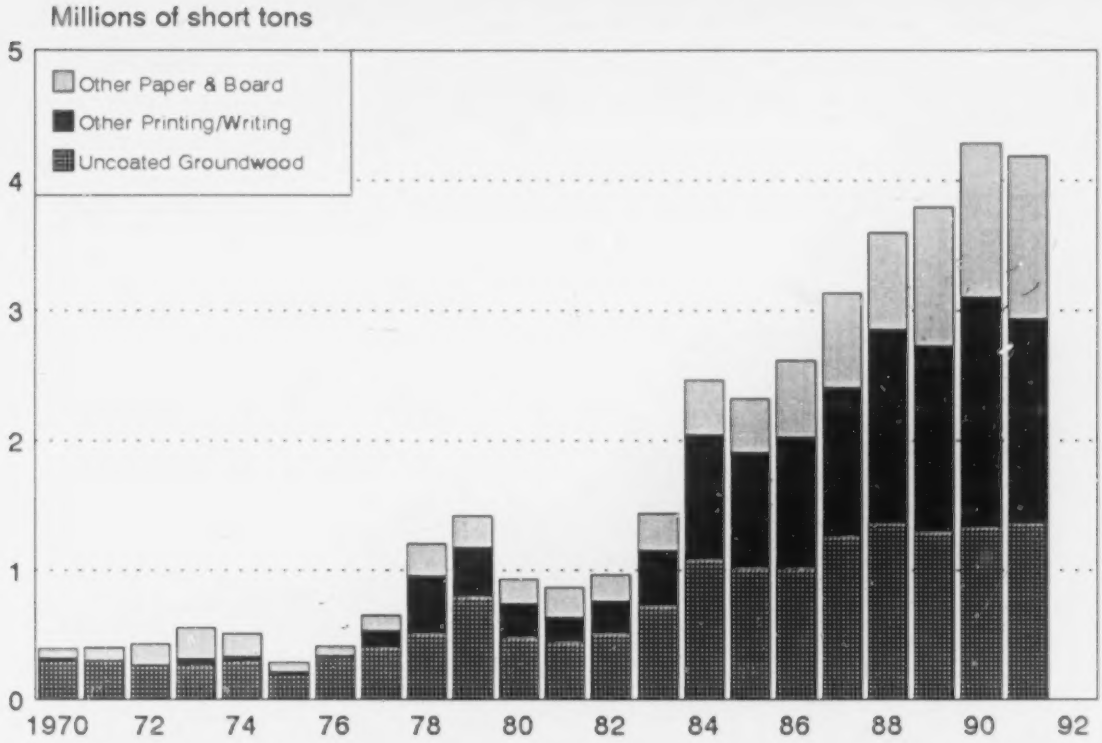


Chart 8

U.S. EXPORTS OF PAPER AND PAPERBOARD

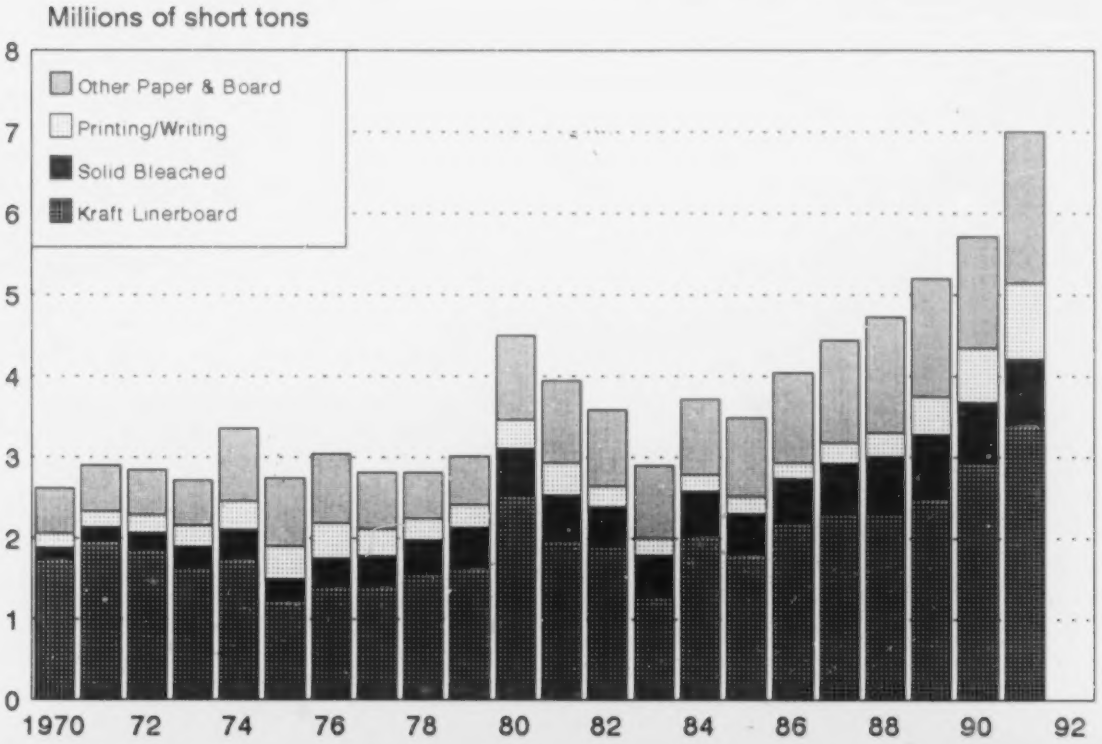


Chart 9

U.S. EXPORTS OF TOTAL PAPER AND TOTAL PAPERBOARD

Millions of short tons

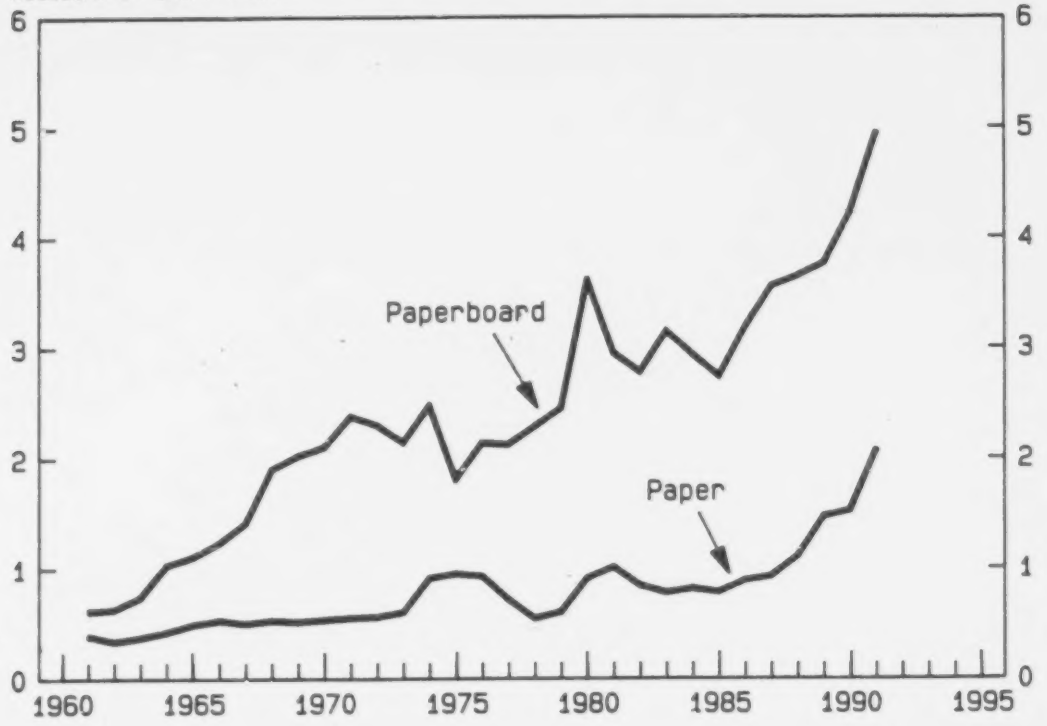


Chart 10

U.S. EXPORTS: TOTAL WOOD PULP & RECOVERED PAPER

Millions of short tons

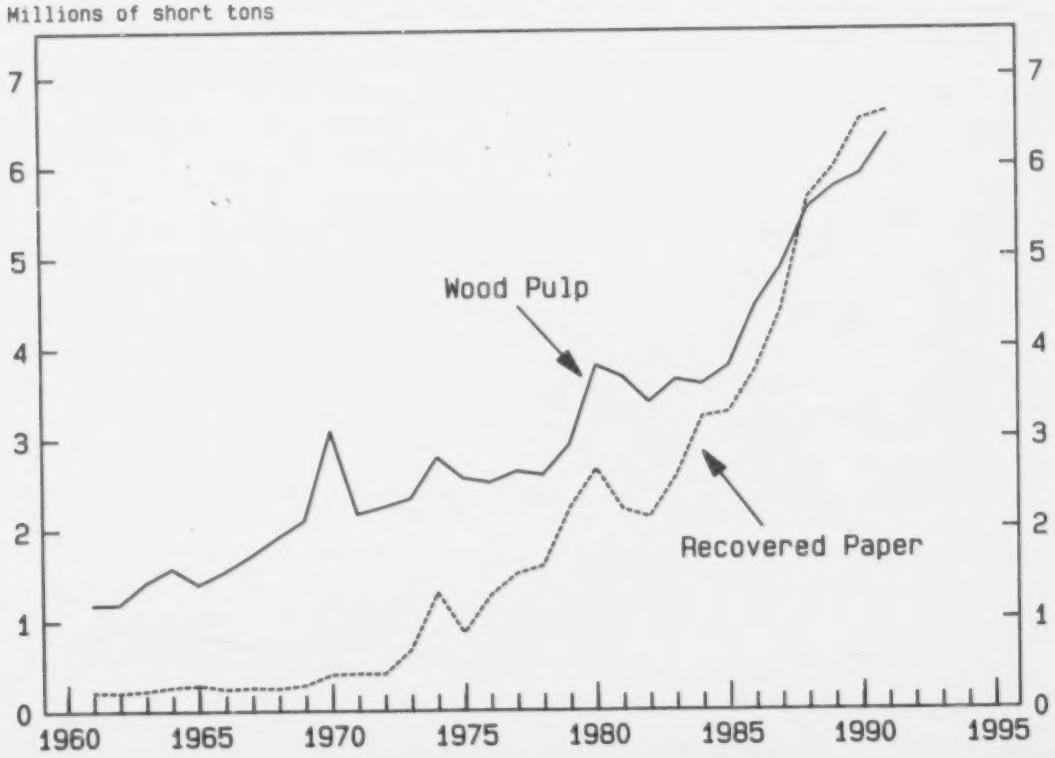


TABLE XII

EXPORTS

WOOD PULP, PAPER, PAPERBOARD AND PRODUCTS

1986 - 1991

	1986		1987		1988	
	Tons	$ 000	Tons	$ 000	Tons	$ 000
TOTAL ALL GRADES	13,051,329	4,685,586	14,797,719	6,007,910	17,061,210	7,476,535
WOOD PULP ALL GRADES, TOTAL	4,458,317	1,662,465	4,889,331	2,259,377	5,528,292	2,914,522
Dissolving and Special Alpha	711,086	339,148	751,825	385,612	864,924	503,610
Sulfite, Paper Grades, Total	343,943	110,831	413,449	165,129	422,273	193,618
Bleached	317,493	104,110	375,020	157,947	392,117	179,384
Unbleached	26,450	6,721	38,429	7,182	30,156	14,234
Sulfate and Soda, Paper Grades, Total	3,344,619	1,197,590	3,697,621	1,698,130	4,190,314	2,196,460
Bleached	3,181,631	1,151,427	3,531,681	1,635,111	3,990,532	2,107,402
Semi-Bleached	18,781	6,388	7,747	2,811	25,777	7,099
Unbleached	144,207	39,775	158,193	60,208	174,005	81,959
Mechanical, Semi-Chemical & Other	58,669	14,896	26,436	10,506	50,781	20,834
COTTON PULP & OTHER FIBER	157,452	72,500	182,001	91,365	201,567	111,923
WASTE PAPER	3,748,711	411,076	4,422,139	553,348	5,640,118	688,258
PAPER, PAPERBOARD AND PRODUCTS, TOTAL	4,686,849	2,539,545	5,304,248	3,103,820	5,691,233	3,752,662
PAPER, PAPERBOARD AND OTHER, TOTAL	4,160,284	1,853,748	4,579,052	2,280,421	4,876,564	2,701,406
PAPER PLUS PAPERBOARD	4,066,236	1,801,850	4,471,700	2,221,200	4,744,688	2,632,346
PAPER, TOTAL	883,768	642,728	921,419	776,226	1,102,489	988,031
Newsprint	392,232	194,550	339,773	210,093	427,296	295,474
Printing & Writing Paper, Total	190,677	185,275	249,092	242,639	287,207	313,047
Uncoated Groundwood	40,850	28,947	55,841	39,751	70,286	58,639
Coated Printing and Converting	78,253	57,858	100,839	72,144	97,463	79,730
Coated Groundwood	36,388	28,356	39,284	28,592	46,211	39,955
Coated Book	41,865	29,502	61,555	43,552	51,252	39,775
Uncoated Free Sheet	50,148	71,355	67,858	99,330	82,660	124,049
Cotton Fiber	4,479	5,843	4,084	6,117	6,026	8,687
Thin (ex. cigarette)	14,533	19,167	18,409	23,331	28,129	39,532
Bristols	2,414	2,105	2,061	1,966	2,643	2,410
Packaging & Industrial Paper, Total	284,098	241,551	294,222	292,704	346,718	342,117
Unbl. Kraft Pkg & Ind.Conv., Total	78,250	32,011	89,194	40,758	110,075	54,975
Unbleached Kraft exc. Ship. Sack	20,883	11,343	23,543	15,670	24,429	19,729
Shipping Sack	57,367	20,668	65,651	25,088	85,646	35,246
Glassine, Greaseproof & Veg. Pa	3,976	9,482	6,182	13,525	32,336	37,146
Other Pkg. & Industrial Converting	36,435	26,495	34,022	23,266	19,723	11,381
Special Industrial, Total	165,437	173,563	164,824	215,155	184,584	238,615
Tissue Paper	16,761	21,352	38,332	30,790	41,268	37,393
PAPERBOARD TOTAL	3,182,468	1,159,122	3,550,281	1,444,974	3,642,199	1,644,315
Kraft Linerboard (a)	2,177,426	635,749	2,296,633	812,161	2,281,362	887,846
Other Kraft Paperboard (Unbleached)	157,615	57,547	210,566	78,596	292,437	102,638
Corrugating Medium Semichemical	76,643	21,712	63,951	22,938	42,360	18,060
Bleached Packaging Paperboard, Total	571,304	359,957	647,803	407,924	742,919	502,514
Milk Carton	417,029	264,142	452,176	290,326	504,372	337,463
Folding Boxboard	119,999	72,479	150,029	90,190	193,105	133,872
Plate, Dish, Tray & Cup	14,703	9,596	28,332	14,576	26,796	18,289
Other	19,573	13,740	17,266	12,832	18,646	12,890
Recycled Furnish Paperboard, Total	199,480	84,157	331,328	123,355	283,121	133,257
Boxboard & Related Boards (b)	10,218	5,008	6,841	4,095	95,232	46,115
Containerboard	54,436	14,943	238,467	97,440	68,142	28,496
Other Paperboard	134,826	64,206	86,020	21,820	119,747	58,646
WET MACHINE BOARD	18,895	7,258	17,328	7,816	11,691	4,915
CONSTRUCTION PAPER $ BOARD, TOTAL	75,153	44,640	90,024	51,405	120,185	64,145
Building Paper	25,935	15,905	33,779	22,491	34,652	24,893
Insulating & Other Building Board	49,218	28,735	56,245	28,914	85,533	39,252
PAPER AND PAPERBOARD PRODUCTS, TOTAL	526,565	685,797	725,196	823,399	814,669	1,051,256
PAPER PRODUCTS, TOTAL	240,221	456,434	301,202	540,681	367,548	682,281
Cig. Paper Cut to Size, Books, etc.	15,416	37,718	17,295	43,497	22,307	59,827
PAPERBOARD PRODUCTS, TOTAL	286,344	229,363	423,994	282,718	447,121	368,975
NOTE: Dollar figures for the value of shipments for which no tonnage figures were given are shown below. They are not included in the sub-totals, but are in the Total, All Grades: ($ 000)		$7,298		$8,037		$9,170

(a) Contains Bleached Kraft Linerboard reported as follows: (Tons) 1985 - 130,358; 1986 - 133,787; 1987 - 102,266.
(b) Excludes Recycled Corrugating Medium

TABLE XII (Cont.)

EXPORTS

WOOD PULP, PAPER, PAPERBOARD AND PRODUCTS

1986 - 1991

	1989		1990 #		1991	
	Tons	$ 000	Tons	$ 000	Tons	$ 000
TOTAL ALL GRADES	18,168,349	8,627,610	19,342,230	9,075,344	21,375,102	9,610,465
WOOD PULP ALL GRADES, TOTAL	5,765,914 R	3,512,604	5,905,338	3,155,671	6,337,525	2,799,620
Dissolving and Special Alpha	797,819	571,681	781,598	504,092	771,703	485,948
Sulfite, Paper Grades, Total	369,246	230,575	407,262	210,864	370,455	173,233
Bleached	352,376	222,310	388,633	204,867	353,716	168,207
Unbleached	16,870	8,265	18,629	5,997	16,739	5,026
Sulfate and Soda, Paper Grades, Total	4,543,603	2,690,692	4,672,877	2,428,257	5,145,098	2,125,289
Bleached	4,368,172	2,618,670	4,449,534	2,349,195	4,891,401	2,049,475
Semi-Bleached	15,100	7,610	36,801	12,803	72,180	14,744
Unbleached	160,331	64,412	186,542	66,259	181,517	61,070
Mechanical, Semi-Chemical & Other	55,246	19,656	43,601	12,458	50,269	15,151
COTTON PULP & OTHER FIBER	122,045	100,510	135,632	104,808	108,516	89,236
WASTE PAPER	5,980,620	729,797	6,504,870	779,687	6,597,708	715,188
PAPER, PAPERBOARD AND PRODUCTS, TOTAL	6,299,770	4,261,034	6,796,390	5,035,178	8,331,353	6,006,421
PAPER, PAPERBOARD AND OTHER, TOTAL	5,259,734	2,982,685	5,748,622	3,449,743	7,042,669	4,067,384
PAPER PLUS PAPERBOARD	5,223,457	2,967,928	5 738,751	3,443,249	7,022,456	4,056,033
PAPER, TOTAL	1,465,752	1,233,526	1,519,052	1,455,104	2,071,696	1,809,482
Newsprint	624,798	357,381	535,993	293,182	743,169	387,924
Printing & Writing Paper, Total	478,200	465,168	664,824	717,699	932,569	905,824
Uncoated Groundwood	88,056	64,766	75,299	63,574	116,623	88,003
Coated Printing and Converting	168,538	131,418	218,684	215,289	276,852	253,134
Coated Groundwood	117,002	81,378	136,957	121,609	163,302	134,764
Coated Book (1989-90 Coated Free Sheet)	51,536	50,040	81,727	93,680	113,550	118,370
Uncoated Free Sheet	122,346	166,830	232,369	306,127	356,358	402,979
Cotton Fiber (1989-90 Inc. in Unc. Free Sheet)	695	1,861	443	884	377	824
Thin (ex. cigarette)	40,552	56,423	45,631	56,795	80,840	78,386
Bristols	46,721	34,053	75,171	61,870	91,050	74,427
Other	11,987	11,678	17,671	14,044	10,846	8,895
Packaging & Industrial Paper, Total	342,042	380,790	283,583	403,949	329,483	444,641
Unbl. Kraft Pkg & Ind.Conv., Total	125,818	60,318	112,828	60,480	132,430	74,467
Unbleached Kraft exc. Ship. Sack	30,482	18,856	32,646	23,265	48,829	33,797
Shipping Sack	95,336	41,462	80,182	37,214	83,601	40,670
Glassine, Greaseproof & Veg. Parch.	8,729	7,106	4,875	7,433	4,283	8,383
Other Pkg. & Industrial Converting	62,625	34,616	30,702	27,651	45,313	40,060
Special Industrial, Total	144,870	278,750	135,178	308,386	147,457	321,731
Tissue Paper	20,712	30,187	34,651	40,273	66,475	71,093
PAPERBOARD TOTAL	3,757,705	1,734,402	4,219,699	1,988,145	4,950,760	2,246,551
Kraft Linerboard (a)	2,499,716	935,364	2,924,140	1,076,705	3,412,141	1,200,615
Other Kraft Paperboard (Unbleached)	246,575	113,315	253,945	144,169	402,484	222,856
Corrugating Medium Semichemical	31,162	14,494	50,466	17,769	84,432	26,889
Bleached Packaging Paperboard, Total	795,305	582,978	764,550	628,859	818,494	662,950
Milk Carton	529,237	392,697	452,637	378,050	444,237	373,385
Folding Boxboard	193,818	148,479	186,026	160,199	241,843	204,537
Plate, Dish, Tray & Cup	20,575	16,548	22,232	19,802	21,607	19,302
Other	51,675	25,254	103,555	70,809	110,807	65,726
Recycled Furnish Paperboard, Total	184,947	88,251	226,598	120,643	233,209	133,241
Boxboard & Related Boards (b)	21,783	12,514	57,139	29,056	135,220	86,143
Containerboard	89,098	32,883	54,956	19,279	38,937	17,213
Other Paperboard	74,066	42,854	114,503	72,307	59,052	29,885
WET MACHINE BOARD	2,889	1,256	487	232	955	433
CONSTRUCTION PAPER & BOARD, TOTAL	33,388	13,501	9,384	6,262	19,258	10,918
Building Paper ***	33,388	13,501	9,384	6,262	19,258	10,918
PAPER AND PAPERBOARD PRODUCTS, TOTAL	1,040,036	1,278,349	1,047,768	1,585,435	1,288,684	1,939,037
PAPER PRODUCTS, TOTAL	473,435	832,806	440,793	1,012,642	590,909	1,281,732
Cig. Paper Cut to Size, Books, etc.	22,808	62,101	23,564	80,377	26,495	85,314
PAPERBOARD PRODUCTS, TOTAL	566,601	445,543	606,975	572,793	697,775	657,305
NOTE: Dollar figures for the value of shipment for which no tonnage figures were given are shown below. They are not included in the sub-totals, but are in the Total, All Grades: ($ 000)		$23,665		$49,964		$67,298

(a) Contains Bleached Kraft Linerboard reported as follows: (Tons) 1988 - 140,801; 1989 - 283,113; 1990 - 335,444; 1991 - 384,797.
(b) Excludes Recycled Corrugating Medium. *** Insulating & Other Building Board transferred to SIC 24. # 1990 Export data not fully - comparable with 1989 (see page 71). R - 1989 Wood Pulp Exports revised by API

TABLE XIII

VALUE OF SHIPMENTS OF PRODUCT CLASSES

1984 – 1990

(Millions of Dollars)

1982 – 1988 SIC CODE		1987 SIC CODE	1984	1985	1986	1987	1988	1989	1990
	PAPER AND ALLIED PRODUCTS	26	$92,290	$90,541	$94,625	$105,399	$118,725	$127,266	$127,528
2611–	Pulp Mill Products	2611–	4,184	3,630	4,189	5,357	6,686	7,719	6,917
26111	Special Alpha and Dissolving Woodpulp	26111	618	562	588	687	856	1,029	976
26113	Sulfate Wood Pulp	26113	3,125	2,627	3,140	4,124	5,148	5,896	5,155
26114	Sulfite and Other Wood Pulp	26114	200	228	212	248	336	376	372
26115	Pulp, Other Than Wood, and Pulpmill Byproducts, n.e.c.	26115	237	208	249	298	344	418	412
26110	Pulp Mill Products, n.s.k.	26110	4	5	0	1	2	1	2
2621–	Papermill Products, except Building Paper		24,354	23,831	24,477	26,994	31,790	33,293	33,618
	Papermill Products	2621–	24,529	23,790	24,614	27,122	31,923	33,404	33,715
26211	Newsprint	26211	2,370	2,385	2,410	2,766	3,168	2,989	3,158
26212	Uncoated Groundwood Papers	26212	1,044	996	942	934	1,131	1,187	1,168
26213	Clay Coated Printing and Converting Papers	26213	5,363	5,369	5,468	5,959	7,431	7,485	7,680
26214	Uncoated Free Sheet	26214	6,899	6,648	7,330	8,143	9,640	10,071	10,148
26215	Bleached Bristols, Excluding Cotton Fiber Index and Bogus	26215	709	674	697	778	923	1,062	1,045
26216	Cotton Fiber Papers and Thin Papers	26216	762	685	723	738	876	887	907
26217	Unbleached Kraft Packaging and Indust. Converting Papers	26217	1,349	1,102	1,126	1,314	1,480	1,520	1,374
26218	Pkg. and Ind. Conv. Papers, Exc. Unbl. Kraft	26218	859	880	870	953	1,120	1,123	1,185
26219	Special Industrial Papers	26219	1,058	1,007	997	1,059	1,176	1,171	1,212
2621A	Tissue Papers and Other Machine Creped Papers	2621A	3,882	3,843	3,884	4,257	4,730	5,719	5,639
26210	Paper Mill Products, n.s.k.	26210	59	41	30	92	116	79	103
26612	Construction Papers	2621	175	159	137	128	133	111	98
2631–	Paperboard Mill Products	2631–	11,686	10,574	11,317	13,697	15,497	16,352	15,985
26311	Unbleached Kraft Pkg. and Ind. Conv. Paperboard	26311	5,218	4,655	5,111	6,416	7,216	7,430	7,110
26312	Bleached Packaging and Industrial Converting Paperboard	26312	2,367	2,077	2,286	2,559	3,022	3,496	3,589
26313	Semichemical Paperboard	26313	1,355	1,224	1,344	1,608	1,895	1,886	1,731
26314	Recycled Paperboard	26314	2,607	2,513	2,475	2,997	3,243	3,424	3,435
26318	Wet Machine Board	26318	82	78	67	64	60	64	– S –
26310	Paperboard Mill Products, n.s.k.	26310	58	27	35	54	63	53	57
265–	Paperboard Containers and Boxes	265–	21,967	22,180	22,506	25,095	27,405	29,524	29,639
26510	Bending Paperboard Packaging and Packaging Components		4,327	4,452	4,575	4,615	5,866	6,567	6,794
	Folding Paperboard Boxes	2657–				5,522	5,866	6,567	6,794
26520	Setup Paperboard Boxes	26520	493	481	522	518	520	574	602
26530	Corrugated and Solid Fiber Boxes, Including Pallets	26530	12,719	12,715	13,038	15,602	17,335	18,325	17,979
2654–	Sanitary Food Containers		2,750	2,853	2,806	2,866	2,097	2,309	2,469
	Sanitary Food Containers, Except Folding Boxes	2656–	2,020	2,114	2,072	1,960	2,097	2,309	2,469
26541	Milk and Milk–Type Paperboard Cartons	26561	578	590	569	559	578	614	635
26542	Cups and Liquid–Tight Paper and Paperboard Containers	26562	965	1,076	1,060	849	924	1,019	1,125
26544	Folding Sanitary Food Containers for Liquid, Etc.	(3)	730	739	734	906	N.A.	N.A.	N.A.
26545	Other San. Food Paper & Paperb'd F.C., Boards, & Trays	26563	407	399	396	476	529	601	632
26540	Sanitary Food Containers, Except Folding (Paperb'd) n.s.k.	26560	71	49	47	77	66	75	77
2655–	Fiber Cans, Drums, and Similar Products	2655–	1,679	1,679	1,564	1,494	1,586	1,750	1,795
26551	Paperboard Fiber Drums	26551	313	333	315	312	340	384	382
26552	Fiber Cans, Tubes, and Similar Fiber Products	26552	1,286	1,268	1,176	1,070	1,145	1,243	1,277
26550	Fiber Cans, Drums and Similar Products, n.s.k.	26550	81	80	73	112	102	123	137
264–	Miscellaneous Converted Paper Products	267–	29,924	30,367	32,000	34,128	37,214	40,267	41,271
2641–	Coated and Glazed Paper		6,452	6,654	7,100	7,958	8,861	9,524	9,658
		2671–	1,706	1,827	2,082	2,460	2,713	2,850	2,980
26415	Sgl Web Paper, (Ctd. Rolls & Shts., Incl. Waxed, for Pkg. Uses	26711	517	550	607	474	610	644	637
26416	Single Web Film (Ctd. R&S, Incl. co–extruded, for Pkg. Uses)	26712	317	345	414	879	904	1,021	1,011
26419	Paper/Paper Multiweb Laminations for Packaging Uses	26713	187	181	197	249	229	207	235
2641A	Multiweb Laminated R&S, Exc. Ppr/Ppr & Foil, for Pkg. Uses	26714	684	752	864	858	966	921	976
		26710	—	—	—	—	4	57	121
	Paper Coating and Laminating, n.e.c.	2672–	4,746	4,827	5,018	5,498	6,148	6,674	6,678
26411	Prtg Pap. Ctd. at Est. Other than where paper was produced	26721	320	394	373	465	414	486	454
26413	Gummed Products	26722	290	203	192	218	231	245	249
26414	Pressure Sensitive Products	26723	2,616	2,661	2,728	3,100	3,643	3,896	3,882
2641	Other Coated and Processed Paper, Except for Packaging	26724	1,136	1,215	1,348	1,200	1,301	1,380	1,464
	Paper Coating and Laminating, n.e.c., n.s.k. (3)	26720	N.A.	N.A.	N.A.	515	560	667	630
26410	Coated and Glazed Paper, n.s.k.		385	354	376	N.A.	N.A.	N.A.	N.A.
2643–	Bags, Except Textile Bags		5,388	5,542	5,839	6,297	7,132	7,756	7,749
	Bags: Plastics, Laminated, and Coated	2673–	3,241	3,573	3,943	3,937	4,558	5,117	5,128
26435	Specialty Bags and Liners, Single Web Paper, Coated	26731	255	265	235	262	272	355	336
26436	Speciality Bags and Liners, Single Web Film	26732	2,347	2,627	2,922	2,857	3,413	3,837	3,835
26437	Speciality Bags and Liners, Multiweb Lamination and Foil	26733	235	242	371	388	425	406	429
26430	Bags, Except Textile Bags, n.s.k.	26730	404	439	415	430	448	520	528
	Bags: Uncoated Paper and Multiwall	2674–	2,147	1,969	1,896	2,361	2,574	2,639	2,621
26434	Grocer's Bags and Sacks, Variety, Shopping, Uncoated	26741	1,183	1,085	1,007	1,142	1,167	1,249	1,175
26438	Shipping Sacks and Multiwall Bags, Except Textiles	26742	963	885	889	1,197	1,375	1,353	1,398
	Bags, Uncoated and Multiwall, n.s.k.	26740	N.A.	N.A.	N.A.	22	32	37	48
2645–	Die–Cut Paper and Board	2675–	1,880	1,651	1,690	1,701	1,866	1,962	2,093
26453	Die–Cut Paper and Board Office Supplies	26751	652	619	643	893	948	891	927
26454	Die–Cut Paper and Board Products (Other than Office)	26752	264	266	298	164	184	202	199
26455	Pasted, Lined, Laminated, or Surface–Coated Paperboard	26753	828	592	568	458	530	565	629
26450	Die–Cut Paper and Board Products, n.s.k.	26750	135	175	182	186	205	304	338
2647–	Sanitary Paper Products	2676–	9,772	10,194	10,732	11,172	11,853	13,637	14,008
26471	Sanitary Napkins and Tampons	26761	1,163	1,167	1,334	1,350	1,262	1,314	1,361
26473	Disposable Diapers	26763	2,594	2,609	2,923	3,203	3,224	3,952	4,106
26474	Sanitary Tissue Health Products	26764	5,921	6,338	6,378	6,503	7,250	8,262	8,449
26470	Sanitary Paper Products, N.S.K.	26760	94	80	97	116	118	109	92
26420	Envelopes (Excluding Stationery Evelopes)	2677–	2,108	2,086	2,230	2,500	2,650	2,604	2,602
2648–	Stationery Products	2678–	1,161	1,107	1,192	1,115	1,166	1,157	1,197
26481	Stationery	26781	305	315	342	283	304	307	342
26482	Tablets and Related Products	26782	736	687	760	706	736	748	749
26480	Stationery Products, n.s.k.	26780	120	106	90	126	126	102	106
2649–	Converted Paper Products n.e.c.	2679–	3,165	3,133	3,217	3,386	3,686	3,827	3,964
26493	Wallcoverings	26791	498	540	520	530	534	518	548
26494	Gift Wrap Paper	26792	492	513	565	592	571	591	621
26496	Paper Business Machine Supplies, Office Supplies, N.E.C.	26793	191	196	199	229	256	340	367
2648–	Pressed and Molded Pulp Goods	26794	236	260	270	273	288	326	370
26497	Other Converted Paper and Board Products	26795	1,262	1,212	1,251	1,228	1,476	1,364	1,490
26490	Converted Paper Products, n.e.c., n.s.k.	26790	486	413	413	534	561	488	568

SOURCE: Survey of Manufactures – Bureau of Census (1) 1987 code includes construction papers
(2) SIC Codes 26570, 86, 88, 94, 90, part of 2657; not included in 2656 (3) Incl. 27610 – Paper coating and laminating, n.s.k.
n.s.k. – Not specifically known n.e.c. – Not elsewhere classfied N.A. – Not available – S – Estimate did not meet pub. stds.

SECTION II

REGIONAL DATA

The Bureau of the Census, which was the only source of data on paper and paperboard production, by state, until 1989, ended their surveys with the 1989 report. API's Economics Department has prepared 1990 estimates of regional paper and paperboard production, wood pulp production, together with pulpwood and recovered paper consumption, based on the data reported to API as part of the Capacity Survey. These figures have been adjusted to conform to the national totals reported elsewhere in this volume. They are not fully comparable with the earlier Census data.

Table XIV (page 42) lists these estimates. The regional paper, paperboard and wood pulp totals are compatible with comparable capacity data published in Table XV.

The Charts on page 43 picture the distribution of wood pulp and of paper and paperboard capacity in the nine Census divisions for the year 1990. The table below presents the percentage distributions paper, paperboard and wood pulp in 1990 and 1994.

The South continues to gain in importance as a paper, paperboard and wood pulp producer. With 53.3% of the nation's paper and paperboard capacity in 1990, southern mills will install 57.2% of the total capacity increase from 1990 to 1994, bringing their share to 53.7%. Virtually all the new wood pulp capacity -- 96% of the additional capacity where the sitings are known -- will be built in the South.

The North Central mills are also gaining position in paper and paperboard capacity: with 18.3% of total 1992 capacity these states account for 21.5% of total 1990-1994 additions.

The Northeast and North Central States are major users of recovered paper, with 48.4% of the total used at paper and paperboard mills in 1990. The South used 34.7%; the West, 16.9%. Southern mills, however, reported 49.7% of the planned increase in recovered paper consumption from 1990 to 1994 as integrated mills expand their use of recovered paper; the Northern States, combined, 45%, and the West 17.4%.

PAPER, PAPERBOARD AND WOOD PULP CAPACITY
BY CENSUS REGION AND DIVISION
PERCENTAGE DISTRIBUTION

	TOTAL PAPER AND BOARD		TOTAL PAPER		TOTAL PAPERBOARD		TOTAL OTHER		TOTAL WOOD PULP	
	1990	1994	1990	1994	1990	1994	1990	1994	1990	1994
UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NORTHEAST	13.9	13.5	21.8	21.0	5.8	5.7	18.0	18.2	7.3	7.0
NEW ENGLAND	7.3	7.0	12.4	11.9	2.4	2.3	2.5	2.6	5.2	5.0
MIDDLE ATLANTIC	6.7	6.5	9.4	9.1	3.5	3.4	15.5	15.6	2.1	2.0
NORTH CENTRAL	18.3	18.6	23.1	23.6	13.3	13.4	22.7	23.4	7.6	7.3
EAST NORTH CENTRAL	15.8	15.8	19.5	19.3	12.1	12.3	14.4	14.8	6.3	5.9
WEST NORTH CENTRAL	2.5	2.8	3.6	4.2	1.2	1.2	8.3	8.7	1.3	1.5
SOUTH	53.3	53.7	41.2	41.4	65.4	66.2	54.9	53.9	68.7	70.1
SOUTH ATLANTIC	23.9	23.8	16.4	16.2	31.7	31.8	20.5	19.8	31.3	31.1
EAST SOUTH CENTRAL	13.9	14.2	11.8	12.0	15.9	16.3	19.0	18.8	19.1	20.5
WEST SOUTH CENTRAL	15.5	15.7	13.1	13.3	17.9	18.2	15.5	15.3	18.3	18.6
MOUNTAIN AND PACIFIC	14.5	14.1	13.9	14.0	15.5	14.6	4.4	4.5	16.4	15.5

TABLE XIV

STATE DATA – 1990

GEOGRAPHIC AREAS	Pulpwood Consumption	Wood Pulp Production	Recovered Paper Consumption	PAPER AND PAPERBOARD SHIPMENTS: Total All Grades Paper & Paperboard	Paper	Paperboard	Wet Machine Board	Construction Paper Plus Insulating Board
	(Cords)*	Thousand Short Tons						
UNITED STATES, TOTAL	98,242,000	63,818	22,008	78,781 (1)	39,359	39,422	100	1,470
Northeast	6,840,000	4,445	3,956	10,465	8,334	2,131		
New England	4,934,472	3,040	1,502	5,562	4,679	883		
Maine	(D)	(D)	572	3,684	(D)	(D)		
New Hampshire	–	–	(Inc. in ME)	499	(D)	(D)		
Vermont	–	–	(Inc. in ME)	177	(D)	(D)		
Massachusetts	(D)	(D)	500	709	412	297		
Connecticut	–	–	430	494	(D)	(D)		
Middle Atlantic	1,905,528	1,404	2,454	4,903	3,655	1,248		
New York	772,149	585	770	1,997	1,664	333		
New Jersey	–	(D)	741	669	406	263		
Pensylvania	1,133,379	820	943	2,237	1,585	651		
North Central	7,313,000	4,747	6,699	14,016	8,821	5,195		
East North Central	6,038,789	3,883	6,115	12,122	7,428	4,693		
Ohio	826,662	709	1,509	2,266	1,017	1,249		
Indiana	(Inc. in OH)	(Inc. in OH)	717	706	49	657		
Illinois	–	–	739	649	243	406		
Michigan	2,101,589	1,324	1,353	2,968	1,460	1,508		
Wisconsin	3,110,538	1,850	1,798	5,532	4,659	873		
West North Central	1,274,211	864	584	1,894	1,393	502		
Minnesota	(D)	(D)	(Inc. in IA)	(D)	(D)	(D)		
Iowa	(D)	(D)	414	(D)	–	(D)		
Missouri	(D)	(D)	(Inc. in KS)	–	–	(D)		
Kansas	–	–	170	(D)	–	–		
South	70,146,000	44,702	7,626	42,798	16,632	26,166	N.A.	N.A.
South Atlantic	31,825,000	19,930	4,024	18,802	6,525	12,277		
Delaware	–	–	115	(D)	(D)	–		
Maryland	(Inc. in NC)	(Inc. in NC)	(Inc. in DE)	(D)	(D)	(D)		
Virginia	4,053,573	2,775	822	3,415	1,072	2,343		
West Virginia	–	–	(Inc. in VA)	(D)	–	(D)		
North Carolina	4,227,283	3,189	492	2,170	975	1,195		
South Carolina	4,927,505	3,104	473	2,914	1,133	1,781		
Georgia	10,793,575	7,033	2,122	6,651	1,999	4,651		
Florida	6,763,402	4,034	(Inc. in GA)	3,075	930	2,145		
East South Central	19,734,982	12,668	1,669	11,257	4,824	6,433		
Kentucky	936,981	674	767	549	(D)	(D)		
Tennessee	2,461,958	1,911	(Inc. in KY)	2,375	1,137	1,237		
Alabama	11,058,964	7,000	902	6,222	2,685	3,536		
Mississippi	5,277,079	3,083	(Inc. in AL)	2,112	(D)	(D)		
West South Central	18,586,018	12,104	1,934	12,740	5,284	7,456		
Arkansas	4,006,412	2,493	763	2,585	1,396	1,188		
Louisiana	8,981,473	5,741	(Inc. in AK)	5,968	2,198	3,770		
Oklahoma	1,343,272	889	724	1,396	310	1,086		
Texas	4,254,861	2,981	447	2,791	1,379	1,412		
West	13,943,000	9,923	3,726	11,502	5,572	5,931		
Mountain	1,738,988	1,251	440	1,498	419	1,079		
Montana	(D)	(D)	(Inc. in AZ)	(D)	–	(D)		
Idaho	(D)	(D)	(Inc. in AZ)	(D)	(D)	(D)		
Colorado	–	–	(Inc. in AZ)	(D)	–	(D)		
New Mexico	–	–	–	–	–	–		
Arizona	(D)	(D)	440	(D)	(D)	(D)		
Pacific	12,204,013	8,672	3,286	10,004	5,153	4,852		
Washington	6,467,359	4,601	309	4,145	2,917	1,228		
Oregon	3,768,169	2,977	960	3,676	1,671	2,006		
California	1,968,485	1,094	2,017	2,183	565	1,618		
Alaska	(Inc. in CA)	(Inc. in CA)	–	–	–	–		

SOURCE: Pulpwood – American Pulpwood Association. Paper and Paperboard, Wood Pulp, Recovered Paper – American Paper Institute.
NOTE: Data not fully comparable with Census data published in earlier reports. – = 0
(D) – Withheld to avoid disclosure * – 128 Cu. Ft. roughwood basis. N.A. – Not Available
(1) – Total including Wet Machine Board, Construction Paper and Insulating Board: 80,352,000 tons.

Chart 11

WOOD PULP REGIONAL CAPACITY-1990
TOTAL - 65,985,000 Tons

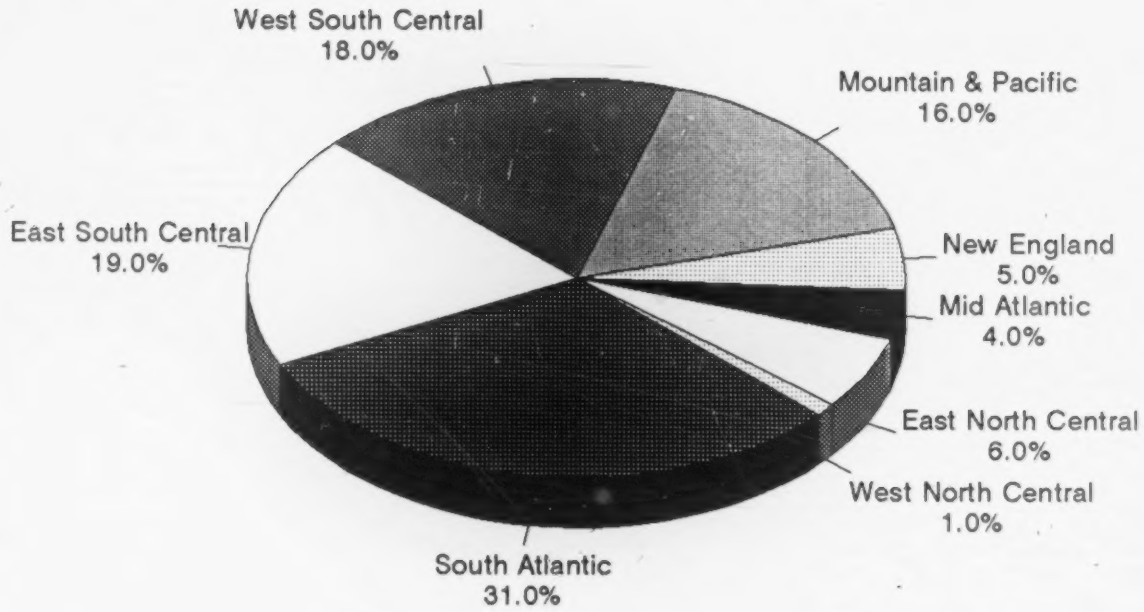


Chart 12

PAPER AND PAPERBOARD REGIONAL CAPACITY-1990
TOTAL - 86,514,000 Tons

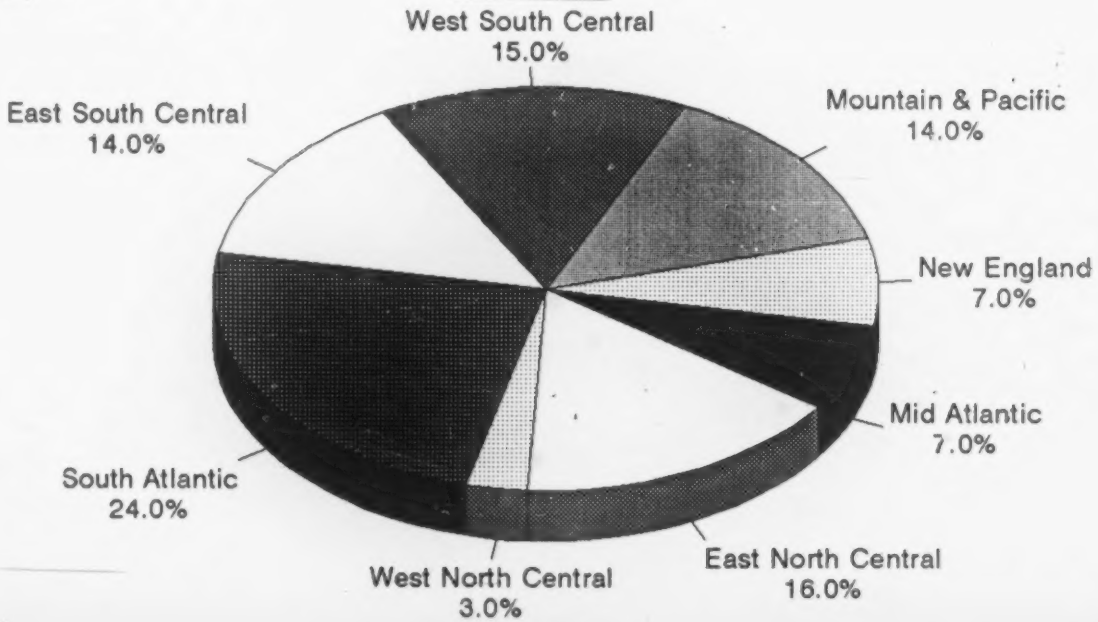


TABLE XV

PAPER, PAPERBOARD AND WOOD PULP CAPACITY BY CENSUS DIVISION

1970, 1980, 1989, 1990, 1994

Annual Capacity – 000 Short Tons

	PAPER AND PAPERBOARD TOTAL	PAPER					PAPERBOARD			
								Unbleached Kraft		
		Total	Newsprint	Printing Writing & Related	Packaging & Industrial Converting	Tissue	Total	Total	Liner–Board	Solid Bleached
New England				**						
1970 *	4,748	3,660	417	2,419	367	457	895	–	–	34
1980	5,712	4,644	323	3,322	459	541	891	–	–	N.A.
1989	6,263	5,297	N.A.	3,912	465	529	911	–	–	–
1990	6,219	5,229	N.A.	3,876	467	540	990	–	–	–
1994	6,534	5,493	N.A.	4,185	440	543	1,041	–	–	–
Middle Atlantic										
1970 *	6,354	3,411	149	1,926	300	1,036	2,087	–	–	–
1980	6,452	3,890	N.A.	2,312	224	1,155	1,912	–	–	–
1989	5,803	4,002	N.A.	2,416	312	1,057	1,438	–	–	–
1990	5,442	3,986	N.A.	2,411	319	1,033	1,456	–	–	–
1994	5,769	4,199	N.A.	2,513	359	1,094	1,570	–	–	–
East North Central										
1970 *	10,057	5,070	113	3,197	628	1,132	4,021	–	–	–
1980	11,253	6,202	140	4,056	768	1,237	4,238	–	–	–
1989	13,137	8,013	N.A.	5,431	953	1,443	4,880	–	–	–
1990	13,340	8,269	N.A.	5,515	1,035	1,522	5,071	–	–	N.A.
1994	14,509	8,915	N.A.	5,906	1,107	1,702	5,594	–	–	N.A.
West North Central										
1970 *	1,587	594	–	571	23	–	438	–	–	–
1980	1,856	850	–	834	17	–	440	–	–	–
1989	2,007	1,322	–	1,294	N.A.	–	513	–	–	–
1990	2,029	1,504	–	1,475	N.A.	–	525	–	–	–
1994	2,471	1,943	–	1,914	N.A.	–	528	–	–	–
South Atlantic										
1970 *	13,623	3,520	339	1,275	1,723	182	9,514	6,194	5,770	1,382
1980	16,945	4,746	676	1,985	1,699	386	11,409	7,469	6,945	1,788
1989	20,458	6,573	1,115	3,353	1,416	689	13,388	8,923	8,335	1,865
1990	20,260	6,923	1,304	3,493	1,362	764	13,337	8,918	8,391	1,776
1994	21,912	7,450	1,340	4,021	1,212	877	14,462	9,060	8,528	2,215
East South Central										
1970 *	7,137	2,792	833	747	739	473	3,439	2,232	2,168	626
1980	8,515	3,408	1,061	1,335	506	505	4,744	3,008	2,679	717
1989	11,398	4,617	1,207	2,526	207	676	6,375	4,155	3,691	836
1990	11,646	4,975	1,375	2,711	205	684	6,671	4,412	3,891	794
1994	12,916	5,516	1,549	2,991	194	782	7,400	4,891	3,960	808
West South Central										
1970 *	7,106	3,188	721	1,130	1,247	88	3,172	1,704	1442	871
1980	10,267	4,437	1,159	1,504	1,445	329	5,194	2,964	2,484	1,197
1989	13,143	5,713	1,264	2,748	1,268	432	7,102	4,358	3,753	1,473
1990	13,045	5,532	1,292	2,656	1,121	463	7,513	4,628	4,018	1,591
1994	14,406	6,127	1,329	3,175	1,097	526	8,279	5,298	4,640	1,659
Mountain and Pacific										
1970 *	8,340	3,571	888	954	913	817	4,053	2,177	2,136	435
1980	9,716	4,483	1,279	1,451	953	800	4,881	2,526	2,479	441
1989	12,105	5,628	1,915	1,956	785	971	6,385	3,442	3,414	541
1990	12,412	5,897	2,055	2,012	831	999	6,515	3,480	3,439	544
1994	13,106	6,462	2,433	2,021	899	1,109	6,644	3,385	3,338	670

SOURCE: American Paper Institute, Paper, Paperboard and Wood Pulp Capacity Survey, various issues through December 1991.

* Total Capacity at end of year. **The Capacity Survey reported an additional 257,000 tons under "Location Uncertain".

N.A. Not Available – = Zero

TABLE XV (Cont.)

PAPER, PAPERBOARD AND WOOD PULP CAPACITY BY CENSUS DIVISION

1970, 1980, 1989, 1990, 1994

Annual Capacity – 000 Short Tons

	PAPERBOARD (Cont.)		CONSTRUCTION	WOOD PULP							
	Semi-Chemical	Recycled	Total Paper & Board	Total **	Dissolving	Sulphite	Bl. & Sbl. Sulfate ***	Unbl. Sulfate (1)	Semi-chemical	Mechanical	For Const. Grades (2)
New England											
1970 *	179	682	192	2,797	–	484	1,061	53	140	953	105
1980	N.A.	663	176	3,253	–	N.A.	1,757	70	N.A.	908	130
1989	N.A.	799	54	3,497	–	N.A.	2,061	N.A.	N.A.	1,013	86
1990	N.A.	881	54	3,429	–	N.A.	2,112	N.A.	N.A.	959	45
1994	N.A.	916	54	3,509	–	N.A.	2,190	N.A.	N.A.	987	45
Middle Atlantic											
1970 *	–	2,087	856	1,357	–	143	312	86	325	247	244
1980	–	1,912	651	1,465	–	245	486	–	364	221	150
1989	–	1,438	363	1,438	–	N.A.	529	–	430	175	1
1990	–	1,456	328	1,405	–	N.A.	543	–	388	172	–
1994	–	1,570	328	1,378	–	N.A.	554	–	351	175	–
East North Central											
1970 *	1,128	2,789	966	3,209	–	567	601	165	987	462	427
1980	1,475	2,762	813	3,532	–	535	834	216	1,284	319	344
1989	1,889	2,990	244	4,122	–	359	1,535	N.A.	1,412	496	81
1990	1,910	3,160	306	4,174	–	361	1,581	N.A.	1,409	497	81
1994	1,910	3,683	310	4,086	–	323	1,613	N.A.	1,323	500	82
West North Central											
1970 *	176	262	555	959	–	44	206	24	265	286	153
1980	63	377	566	899	–	–	265	17	100	195	322
1989	N.A.	438	173	841	–	–	N.A.	N.A.	N.A.	415	48
1990	N.A.	448	175	841	–	–	N.A.	N.A.	N.A.	409	48
1994	N.A.	454	182	1,029	–	–	N.A.	N.A.	N.A.	463	48
South Atlantic											
1970 *	1,103	834	589	14,598	600	2	4,222	8,140	913	385	336
1980	1,116	1,037	790	17,364	658	–	5,842	9,014	879	509	482
1989	1,225	1,376	497	20,501	540	–	8,609	9,215	916	1,017	204
1990	1,243	1,400	435	20,630	548	–	8,695	9,377	907	969	134
1994	1,278	1,909	415	21,629	549	–	10,005	9,261	827	864	123
East South Central											
1970 *	333	248	906	7,586	285	–	2,481	2,871	429	844	676
1980	672	347	363	9,251	N.A.	–	3,956	3,435	590	852	189
1989	943	441	406	11,977	N.A.	–	5,912	3,938	679	1,052	146
1990	990	475	402	12,573	N.A.	–	6,186	4,003	660	1,285	146
1994	1,067	706	394	14,247	N.A.	–	7,386	4,311	675	1,425	147
West South Central											
1970 *	352	245	747	7,069	–	–	2,969	2,765	259	694	383
1980	708	326	635	10,059	–	–	3,896	4,326	620	979	238
1989	846	425	328	11,871	–	–	4,995	5,051	657	1,062	106
1990	860	434	328	12,108	–	–	5,007	5,226	664	1,107	104
1994	891	431	322	12,946	–	–	5,676	5,346	665	1,158	101
Mountain and Pacific											
1970 *	485	957	716	8,896	883	1,163	2,147	2,932	366	787	619
1980	720	1,193	352	9,391	703	885	2,658	3,273	620	1,086	163
1989	691	1,710	92	10,779	676	799	3,362	3,954	518	1,406	64
1990	705	1,786	93	10,825	645	838	3,368	3,851	502	1,559	62
1994	752	1,837	94	10,820	641	835	3,723	3,580	495	1,484	62

(1) Includes screenings. (2) Excludes defibrated/exploded pulp capacity of mills that produce hard pressed board, 1980 – 1994.

* Total capacity at end of year. N.A. – Not Available. – = Zero.

** Includes soda pulp for 1970 as follows (000 tons): New England – 10, Middle Atlantic – 86, East South Central – 93, Mountain and Pacific – 4. Other years, soda pulp is included in sulfate pulp.

*** The Capacity Survey reported an additional 246 thousand tons under "Location Uncertain".

TABLE XVI

PAPER AND ALLIED PRODUCTS – 1987 DATA

	Number of Establishments	Number of All Employees (000)	Total Payroll $ Million	Number of Production Workers (000)	Wages of Production Workers	Value Added by Manufacture	Value of Shipments	Capital Expenditures
					Million Dollars			
Northeast #	1,813	159	4,156	118.9	2,766.4	10,602.7	23,131.9	1,083.0
New England #	513	56	1,545	42.3	1,055.2	3,948.6	8,322.8	486.0
Maine	37	16.2	551.0	12.7	411.3	1,474.6	3,293.6	301.3
New Hampshire	41	5.6	153.7	4.1	94.3	408.0	909.4	35.6
Vermont	19	2.2	49.6	1.8	37.1	169.4	352.3	(D)
Massachusetts	271	23.0	559.5	16.6	353.5	1,162.9	2,376.6	85.1
Rhode Island	48	2.0	38.6	1.6	26.7	80.1	167.4	4.3
Connecticut	97	7.3	192.9	5.5	132.3	653.6	1,223.5	59.7
Middle Atlantic	1,300	102.6	2,610	76.6	1,711.2	6,654.1	14,809.1	597.0
New York	596	40.0	952.9	30.6	629.6	2,156.4	4,793.2	218.5
New Jersey	337	24.8	638.9	17.8	384.0	1,517.2	3,207.9	102.9
Pennsylvania	367	37.8	1,018.5	28.2	697.6	2,980.5	6,808.0	275.6
North Central #	1,796	163.0	4,478.5	123.3	3,102.1	12,476.7	27,689.0	1,096.3
East North Central	1,426	126.2	3,535.7	94.7	2,435.9	9,398.7	21,270.9	561.5
Ohio	382	30.0	811.2	22.5	557.8	1,852.7	4,383.9	173.1
Indiana	172	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Illinois	401	32.3	787.5	24.4	513.4	1,978.9	4,419.9	(D)
Michigan	232	20.6	602.7	15.2	417.4	1,684.5	3,646.8	(D)
Wisconsin	239	43.3	1,334.3	32.6	947.3	3,882.6	8,820.3	388.4
West North Central #	370	36.8	942.8	28.6	666.2	3,078.0	6,418.1	534.8
Minnesota	107	14.0	406.7	11.1	295.7	1,351.3	2,610.1	394.8
Iowa	50	5.2	126.4	4.0	87.4	397.8	896.8	22.1
Missouri	134	12.6	298.6	9.9	212.3	910.5	2,033.6	117.9
North Dakota	–	–	–	–	–	–	–	–
South Dakota	8	0.5	9.0	0.4	6.1	29.8	62.2	(D)
Nebraska	17	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Kansas	54	4.5	102.1	3.2	64.7	388.6	815.4	(D)
South #	1,717	204.7	5,794.6	158.4	4,161.6	19,996.9	41,247.4	2,366.8
South Atlantic	874	103.3	2,926.8	79.2	2,066.7	9,491.3	20,027.4	1,338.1
Delaware	15	1.7	42.8	1.3	29.9	205.6	327.4	(D)
Maryland	82	9.3	227.1	7.0	153.3	555.1	1,087.2	100.4
Virginia	104	14.5	419.9	10.9	290.3	1,271.9	2,623.2	114.5
West Virginia	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
North Carolina	201	21.8	608.8	17.0	438.9	1,780.6	3,710.9	164.9
South Carolina	82	13.1	386.4	10.4	284.4	1,665.6	3,150.9	139.1
Georgia	207	28.8	846.1	21.5	577.7	2,872.4	6,336.0	445.0
Florida	181	14.1	395.7	11.1	292.2	1,140.1	2,791.8	374.2
East South Central	378	51.4	1,479.2	40.1	1,083.5	5,654.6	11,051.1	432.3
Kentucky	65	6.9	175.0	5.4	123.9	653.5	1,421.1	(D)
Tennessee	160	18.2	458.1	14.2	327.4	1,585.8	3,249.6	116.1
Alabama	94	18.4	617.6	14.3	463.9	2,610.2	4,662.6	209.5
Mississippi	59	7.9	228.5	6.2	168.3	805.1	1,717.8	106.7
West South Central	465	50.0	1,388.6	39.1	1,011.4	4,851.0	10,168.9	596.4
Arkansas	77	12.6	371.7	10.2	289.4	1,144.4	2,461.9	185.6
Louisiana	50	10.3	342.4	8.0	252.6	1,513.3	2,938.1	207.2
Oklahoma	42	3.6	95.7	2.9	74.1	431.7	909.8	21.2
Texas	296	23.5	578.8	18.0	395.3	1,761.6	3,859.1	182.4
West #	930	65.2	1,941.0	50.3	1,409.0	6,081.1	13,811.0	629.7
Mountain #	120	5.3	122.4	4.1	83.2	345.8	819.2	34.1
Montana	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Idaho	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Wyoming	–	–	–	–	–	–	–	–
Colorado	53	2.5	56.9	1.8	36.2	138.2	333.7	16.6
New Mexico	–	–	–	–	–	–	–	–
Arizona	33.0	1.7	42.4	1.3	29.5	144.3	320.3	14.2
Utah	21	1.1	23.1	1.0	17.5	63.3	165.2	3.3
Nevada	–	–	–	–	–	–	–	–
Pacific #	810	59.9	1,818.6	46.2	1,325.8	5,735.3	12,991.8	595.6
Washington	109	16.0	552.3	12.5	420.4	1,778.7	3,980.8	217.0
Oregon	65	7.4	266.6	5.8	202.2	1,156.6	2,267.4	124.2
California	624	36.5	999.7	27.9	703.2	2,800.0	6,743.6	254.4
Hawaii	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Alaska	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)
TOTAL REPORTED	6,256	591.8	16,369.7	450.9	11,439.1	49,157.4	105,879.3	5,175.8
TOTAL U.S.A.		611.3	16,859.8	465.7	11,776.2	50,488.8	108,988.7	5,752.5

Source: Department of Commerce, Bureau of the Census: 1987 Census of Manufactures, Geographic Area Series.
(D) – Data withheld to avoid disclosure. # – Total reported. – = No data reported.

SECTION III

INPUTS AND RELATED DATA

The paper industry continued its steady march toward the goal of recovering 40% of the total new supply for domestic recycling and export by the end of 1995. The 1991 recovery rate (the ratio of total recovery to total new supply) rose to 36.6% in 1991 (Table XIX), compared to 33.6% in 1990 and 30.6% in 1988 -- the base year for the 40% goal.

The 1990-1991 gain reflected a 2-million ton increase in paper recovered, bringing the total to 31 million tons, 5 million tons over the 1988 base. The 1991 recovery rate was also affected by the decline in new supply; absent this effect, the rate would have been 0.7% lower.

Most of the increase was utilized at paper and paperboard mills, where recovered paper consumption gained 1.8 million tons, to reach 23.5 million tons -- equivalent 29.0% of the production total, compared to 27.1% in 1990 and 25.2% in 1988.

Old corrugated containers were the largest single category of recovered paper (Table XX). The 14.2 million tons recovered was 45.5% of the total, and 57.2% of the new supply of containerboard for packaging. Old newspapers, the second largest group, added 6.6 million tons, 21.1% of the total and 52.4% of newsprint new supply.

Pressured by the slow growth rate of the total economy, expenditures on new plant and equipment by paper and allied products companies, which peaked at $16.5 billion in 1990, retreated to $11.6 billion in 1991 (Table XXVI). Preliminary data for 1992, as reported by the Bureau of the Census, indicate that these expenditures leveled out at the 1991 rate. That same table presents data on expenditures at the mills and plants of the paper and allied products industry. The two series were more or less equivalent until the 1980's, but the company data moved up faster in the subsequent years. More recently the company and establishment data followed similar growth trends, with the establishment data just under two-thirds of the company totals.

These expenditures have been a major force in maintaining the growth in industry productivity. Output per employee hour at pulp, paper and paperboard mills, for example, grew at an average annual rate of 3.5% (Table XXIV) from 1981 to 1991. In that same period, paper and paperboard production increased 28.1%, market wood pulp by 45.6%, while employment (Table XXIII) declined 8.0%.

Total wood pulp production (excluding construction paper and board grades) has been growing more slowly than paper and board production (Table XXII), as has use of wood pulp at paper and paperboard mills. In the 1981-1991 period both wood pulp production and consumption, along with pulpwood consumption, expanded by about 21%.

TABLE XVII

MATERIALS CONSUMED BY KIND AT
PAPER, PAPERBOARD AND WOOD PULP MILLS
1987

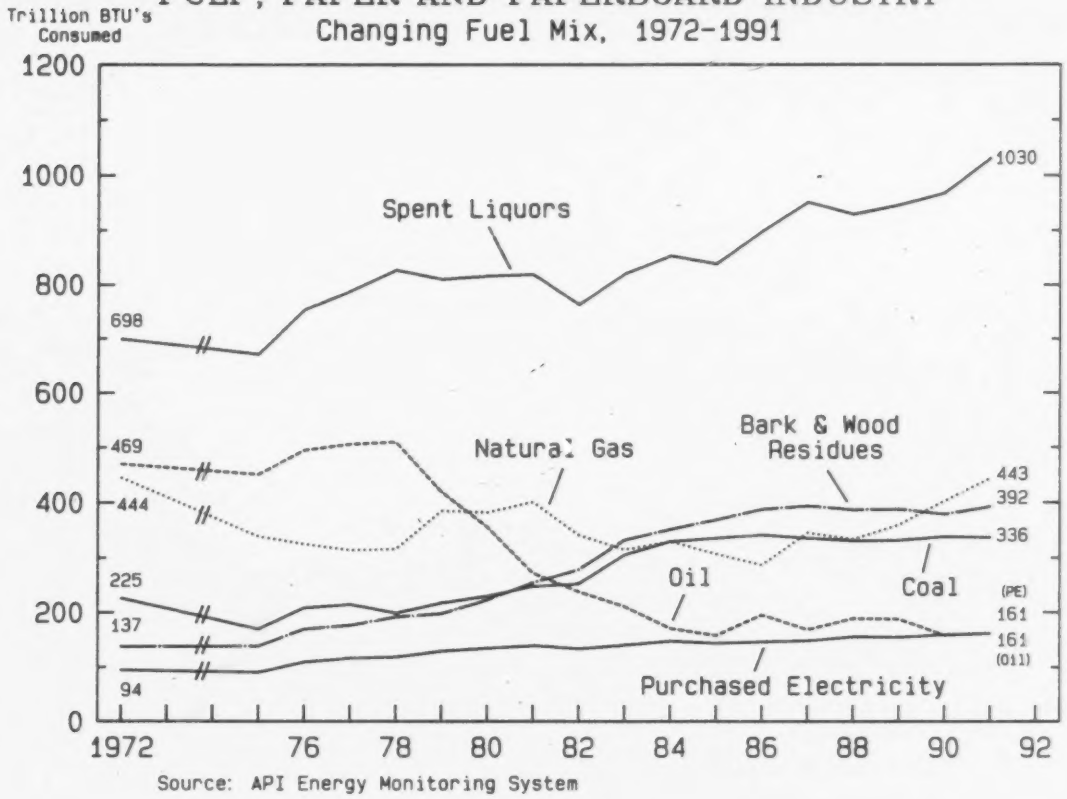
	Industry 2611 Pulp Mills		Industry 2621 Paper Mills		Industry 2631 Paperboard Mills		All Primary Mills	
	000 Tons	$ Mil	000 Tons	$ Mil	000 Tons	$ Mil	000 Tons	$ Mil
MATERIALS, PARTS, CONTAINERS AND SUPPLIES								
Pulpwood (Units: 1,000 cords)								
Softwoods								
Bolts and Logs								
Spruce	179.3	10.4	1,620.3	124.2	(D)	(D)	1,799.6	134.6
Hemlock	769.3	43.8	887.9	58.7	(D)	(D)	1,657.2	102.5
Jack Pine	-	-	896.8	49.7	(D)	(D)	896.8	49.7
Southern Pine	3,902.2	247.6	9,601.7	599.6	13,302.8	826.4	26,806.7	1,673.6
Other Softwoods	(D)	(D)	1,084.9	66.2	(D)	(D)	1,084.9	66.2
Chips	4,242.8	243.5	9,934.4	608.1	13,110.3	745.2	27,287.5	1,596.8
Slabs, cores and other mill residues	(D)	(D)	382.0	11.8	254.3	8.0	636.3	19.8
Sum of reported softwoods	9,093.6	545.3	24,408.0	1,518.3	26,667.4	1,579.6	60,169.0	3,643.2
Hardwoods								
Bolts and Logs								
Northern mixed hardwoods	(D)	(D)	1,653.1	85.1	605.2	29.6	2,258.3	114.7
Poplar (aspen and poppie)	(D)	(D)	1,469.7	76.4	(D)	(D)	1,469.7	76.4
Southern mixed hardwoods	2,245.5	114.0	4,949.3	266.2	3,283.9	164.0	10,478.7	544.2
Other hardwoods	418.5	25.8	1,003.8	54.2	585.6	26.6	2,007.9	106.6
Slabs and other mill residues	1,183.9	66.7	3,670.1	200.7	3,978.8	216.1	8,832.8	483.5
Stumpage costs	(X)	-	(X)	11.0	(X)	(D)	(X)	11.0
Sum of reported hardwoods	3,847.9	206.5	12,746.0	693.6	8,453.5	436.3	25,047.4	1,336.4
Sum of reported pulpwood	12,941.5	751.8	37,154.0	2,211.9	35,120.9	2,015.9	85,216.4	4,979.6
Chemicals (Units: 1,000 Tons)								
Sulfur	101.6	11.1	86.4	11.4	91.7	11.6	279.7	34.1
Chlorine	396.6	60.8	864.2	128.8	336.5	49.9	1,597.3	239.5
Sodium Hydroxide (caustic soda NaOH)	626.7	80.1	1,210.9	160.2	913.4	106.3	2,751.0	346.6
Sodium carbonate (Na2CO3)	(D)	(D)	20.6	4.0	57.6	8.2	78.2	12.2
Sodium Sulfate (Na2SO4)	(D)	(D)	153.9	13.5	319.0	28.9	472.9	42.4
Sodium Chlorate (NaClO3)	136.7	42.4	216.9	67.2	81.9	26.4	435.5	136.0
Titanium Dioxide (TiO2)	3.3	4.8	181.8	279.8	28.2	41.1	213.3	325.7
Aluminum sulfate (17% Al2O3)	13.7	1.8	289.9	39.3	214.7	24.0	518.3	65.1
Rosin sizing	2.6	1.5	78.8	49.9	53.9	33.9	135.3	85.3
Lime	350.2	18.6	760.3	48.2	380.4	22.0	1,490.9	88.8
Sum of reported chemicals	1,631.4	221.1	3,863.7	802.3	2,477.3	352.3	7,972.4	1,375.7
Wood Pulp								
Produced at affiliated mills	(D)	(D)	2,355.2	969.6	(D)	(D)	2,355.2	969.6
Produced and consumed at same location	849.6	(X)	23,353.9	(X)	25,051.8	(X)	49,255.3	(X)
Purchased market wood pulp	(D)	(D)	5,191.8	2,568.5	118.4	50.9	5,310.2	2,619.4
Sum of reported wood pulp	849.6	(X)	30,900.9	3,538.1	25,170.2	50.9	56,920.7	3,589.0
Waste Paper								
Mixed	(D)	(D)	388.8	66.2	1,594.8	128.0	1,983.6	194.2
News	-	-	1,614.2	122.3	1,098.0	67.0	2,712.2	189.3
Corrugated	-	-	453.2	51.9	6,699.1	637.3	7,352.3	689.2
High grade pulp substitutes	-	-	599.5	165.2	709.6	112.1	1,309.1	277.3
High grade deinking	(D)	(D)	1,171.4	135.6	152.0	25.1	1,323.4	160.7
Sum of reported waste paper	(D)	(D)	4,227.1	541.2	10,453.5	969.5	14,680.6	1,510.7
Other Materials								
Linter pulp	-	-	23.5	20.4	-	-	23.5	20.4
Cotton linters (reported in lbs., adjusted to short tons)	183.1	38.6	20.8	20.4	-	-	203.8	59.0
Other fibrous materials	(D)	(D)	142.3	59.8	(S)	0.9	142.3	60.7
Kaolin and ball clay	(D)	(D)	2,380.5	326.1	268.6	33.7	2,649.1	359.8
Starch (reported in lbs., adjusted to short tons)	(D)	(D)	850.3	214.2	212.9	57.6	1,063.2	271.8
Synthetic resins - styrene butadiene (adj.)	-	-	123.9	126.5	15.5	19.4	139.4	145.9
Synthetic resins - polyvinyl acetate (adj.)	-	-	23.6	18.7	19.6	14.7	43.2	33.4
Sum of reported other materials	183.1	38.6	3,541.3	785.7	516.6	126.3	4,240.9	930.6
Paperboard boxes, etc.	(X)	(D)	(X)	157.8	(X)	(D)	(X)	157.8
All other	(X)	413.1	(X)	3,293.0	(X)	1,493.3	(X)	5,199.4
Materials n.s.k	(X)	119.7	(X)	776.9	(X)	179.1	(X)	1,075.7
Sum of reported miscellaneous materials	(X)	532.8	(X)	4,227.7	(X)	1,672.4	(X)	6,432.9
Sum of individual reported materials	(X)	1,544.3	(X)	12,086.9	(X)	5,187.3	(X)	18,818.5
Materials not reported separately	(X)	122.6	(X)	17.6	(X)	143.4	(X)	283.6
Total materials reported	(X)	1,666.9	(X)	12,104.5	(X)	5,330.7	(X)	19,102.1
ENERGY	(X)	264.8	(X)	2,430.7	(X)	1,341.6	(X)	4,037.1
Reported materials and energy	(X)	1,931.7	(X)	14,535.2	(X)	6,672.3	(X)	23,139.2
Other materials	(X)	87.7	(X)	320.8	(X)	167.4	(X)	575.9
REPORTED COST OF MATERIALS	(X)	2,019.4	(X)	14,856.0	(X)	6,839.7	(X)	23,715.1
EMPLOYEE COSTS								
Payroll	(X)	535.1	(X)	4,597.0	(X)	1,858.8	(X)	6,990.9
Other compensation	(X)	124.6	(X)	1,043.6	(X)	371.5	(X)	1,539.7
Total compensation	(X)	659.7	(X)	5,645.6	(X)	2,230.3	(X)	8,530.6
TOTAL DIRECT COSTS (INCLUDING SALARIES)	(X)	2,679.1	(X)	20,496.6	(X)	9,070.0	(X)	32,245.7
CONTRIBUTION TO OVERHEAD	(X)	1,621.7	(X)	8,383.7	(X)	4,684.0	(X)	14,689.4
VALUE ADDED	(X)	2,291.4	(X)	14,024.3	(X)	6,914.3	(X)	23,220.0
Sum of value added & cost of raw materials	(X)	4,300.8	(X)	28,880.3	(X)	13,754.0	(X)	46,935.1
Imputed inventory change	(X)	(12.9)	(X)	(37.7)	(X)	24.3	(X)	(26.3)
VALUE OF SHIPMENTS	(X)	4,313.7	(X)	28,918.0	(X)	13,729.7	(X)	46,961.4

Source: 1987 Census of Manufactures, Pulp, Paper and Board Mills MC87-I-26A. 1988 Survey of Manufactures - Bureau of Census.
(D) Data withheld by Census to avoid disclosing data for individual companies; data are included in higher level totals. (X) Not applicable.
(S) Withheld by Census because estimate did not meet publication standards. - : Zero.

Chart 13

PULP, PAPER AND PAPERBOARD INDUSTRY

Changing Fuel Mix, 1972-1991



Source: API Energy Monitoring System

Chart 14

PULP, PAPER AND PAPERBOARD INDUSTRY

ALL EMPLOYEES-OUTPUT PER HOUR

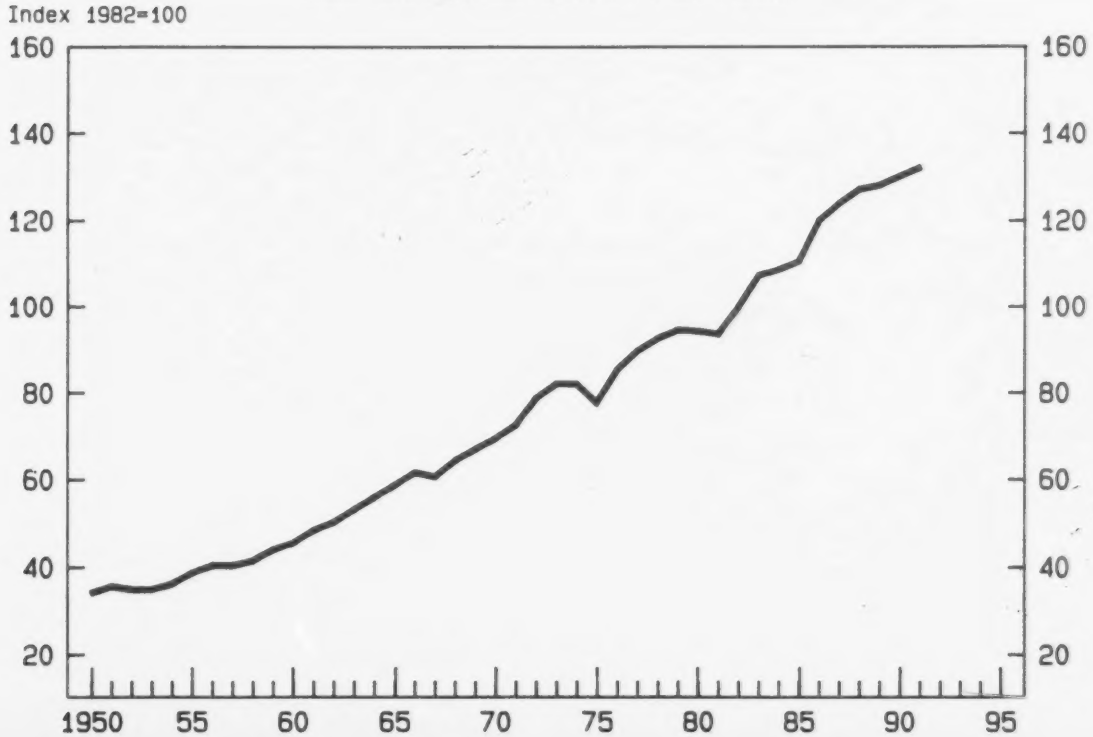


TABLE XVIII

UNITED STATES

PULP, PAPER AND PAPERBOARD INDUSTRY

ESTIMATED FUEL AND ENERGY USE

1972, 1987 - 1991

		1972 *			1987 *			1988 *		
Source	Units	Estimated Use	Billion BTU's	% of Total+	Estimated Use	Billion BTU's	% of Total+	Estimated Use	Billion BTU's	% of Total+
Purch. Electricity	MM KWH	27,559.5	93,698.4	4.4	43,468.5	147,838.8	6.1	45,430.7	154,523.2	6.5
Purchased Steam	MM lbs.	19,548.3	22,613.0	1.1	14,071.1	17,364.0	0.7	18,874.6	20,822.2	0.9
Coal	M Tons	9,033.6	224,737.1	10.7	13,432.0	335,087.0	13.9	13,185.1	329,833.0	13.9
Residual Fuel Oil	M 42 gal BBLs	71,121.2	447,381.5	21.2	25,393.4	159,818.4	6.6	28,367.3	178,494.7	7.5
Distilate Fuel Oil	M 42 gal BBLs	3,698.9	22,020.9	1.0	1,423.6	8,499.8	0.4	1,499.2	8,953.2	0.4
Liquid Propane Gas	M gal	28,566.8	2,628.9	0.1	29,806.6	2,737.3	0.1	28,514.3	2,618.9	0.1
Natural Gas	MMCF	435,459.9	443,916.3	21.1	338,602.4	345,437.7	14.4	326,328.3	332,356.1	14.0
Other Purch. Energy			1,634.0	0.1		24,823.7	1.0		2,219.9	0.1
Energy Sold			(13,125.0)			(35,386.5)			(-39,356.5)	
Total Purch. Fossil Fuel and Energy			1,245,505.1	59.7		1,006,220.2	43.2		990,464.7	43.4
Hogged Fuel (50% Moist. Content)	M Tons	5,191.2	42,103.2	2.0	30,961.7	258,089.4	10.7	31,367.9	262,541.1	11.1
Bark (50% Moisture Content)	M Tons	10,348.2	94,428.9	4.5	16,779.3	134,869.3	5.6	14,345.2	123,693.4	5.2
Spent Liquor (Solids)	M Tons	55,175.5	698,393.4	33.3	76,918.4	949,556.5	39.6	75,361.8	928,310.1	39.3
Self-Generated Hydroelec. Power	MM KWH	2,696.4	9,171.3	0.4	3,448.0	11,662.2	0.5	3,309.8	11,258.5	0.5
Other Self-Generated Energy			2,977.4	0.1		10,177.4	0.4		11,451.5	0.5
Total Self-Generated & Residue Fuels			847,074.2	40.3		1,364,354.8	56.8		1,337,254.6	56.6
Total Energy			2,092,579.3	100.0		2,370,575.0	100.0		2,327,719.3	100.0
Total Production	M Tons		61,487.5			86,489.3			87,312.3	

SOURCE: Energy and Materials Department; Pulp, Materials and Tehnology Group; American Paper Institute.

* Based on a sample of 91.4% total dried pulp, paper and paperboard production for 1990, 93.0% for 1989, and 90.1% for 1987.

\+ Determined by using "Total Energy" + "Energy Sold" as a denominator.

TABLE XVIII (Cont.)

UNITED STATES

PULP, PAPER AND PAPERBOARD INDUSTRY

ESTIMATED FUEL AND ENERGY USE

1972, 1987 - 1991

		1989 *			1990 *			1991 *		
Source	Units	Estimated Use	Billion BTU's	% of Total+	Estimated Use	Billion BTU's	% of Total+	Estimated Use	Billion BTU's	% of Total+
Purch. Electricity	MM KWH	45,272.6	153,997.9	6.4	46,673.0	158,772.5	6.5	47,368.7	161,173.3	6.2
Purchased Steam	MM lbs.	16,953.3	18,431.9	0.8	17,490.1	19,085.4	0.8	19,956.0	21,888.4	0.8
Coal	M Tons	13,173.8	331,102.5	13.7	13,969.4	338,051.6	13.7	13,238.6	335,762.2	13.0
Residual Fuel Oil	M 42 gal BBLs	28,448.3	178,699.3	7.4	23,963.8	150,854.7	6.1	24,752.8	155,648.0	6.0
Distilate Fuel Oil	M 42 gal BBLs	1,434.9	8,568.7	0.4	1,427.1	6,898.2	0.3	1,140.3	5,432.8	0.2
Liquid Propane Gas	M gal	29,280.9	2,689.3	0.1	34,575.9	3,350.1	0.1	81,459.5	7,492.0	0.3
Natural Gas	MMCF	325,905.6	359,414.7	14.9	393,419.6	401,682.9	16.3	433,317.8	443,104.1	17.1
Other Purch. Energy			3,222.7	0.1		5,413.9	0.2		6,241.6	0.2
Energy Sold			(32,695.0)			(33,581.1)			(39,508.3)	
Total Purch. Fossil Fuel and Energy			1,023,432.0	43.8		1,050,528.2	44.0		1,097,234.1	43.8
Hogged Fuel (50% Moist. Content)	M Tons	30,069.6	250,175.9	10.4	29,702.1	247,578.3	10.1	29,251.3	243,625.2	9.4
Bark (50% Moisture Content)	M Tons	16,102.9	136,385.3	5.7	15,065.7	130,694.4	5.3	17,119.9	148,714.1	5.7
Spent Liquor (Solids)	M Tons	76,709.6	944,629.3	39.2	77,977.3	967,036.5	39.3	89,931.1	1,029,544.4	40.1
Self-Generated Hydroelec. Power	MM KWH	3,772.9	12,833.5	0.5	3,938.3	17,240.0	0.7	4,151.8	14,119.8	0.5
Other Self-Generated Energy			11,308.4	0.5		12,984.0	0.5		13,691.5	0.5
Total Self-Generated & Residue Fuels			1,355,332.4	56.2		1,375,533.2	56.0		1,449,695.0	56.2
Total Energy			2,378,764.4	100.0		2,426,061.4	100.0		2,546,929.1	100.0
Total Production	M Tons		87,598.5			N.A.			N.A.	

SOURCE: Energy and Materials Department; Pulp, Materials and Tehnology Group; American Paper Institute.

* Based on a sample of 91.4% total dried pulp, paper and paperboard production for 1990, 93.0% for 1989, and 90.1% for 1987.

+ Determined by using "Total Energy" + "Energy Sold" as a denominator.

N.A. - Not available.

TABLE XIX

UNITED STATES

RECOVERED PAPER UTILIZATION AND RECOVERY

1970 - 1991

(Thousands of Tons)

YEAR	Paper and Board Production	New Supply Paper and Board	Recovered Paper Consumption at Paper & Board Mills	Recovered Paper Utilization Rate	Recovered Paper for Molded Pulp, Insulation and other Uses	Exports	Imports	Total Paper Recovered	Recovery Rate
1970	51,670	55,968	11,803	22.8%	418	408	(67)	12,562	22.4%
1971	53,162	57,450	12,106	22.8%	442	419	(68)	12,899	22.5%
1972	57,434	62,041	12,925	22.5%	447	415	(88)	13,699	22.1%
1973	59,900	65,004	14,094	23.5%	499	683	(87)	15,189	23.4%
1974	59,040	63,308	13,982	23.7%	489	1,307	(89)	15,689	24.8%
1975	50,976	54,113	11,748	23.0%	535	861	(72)	13,072	24.2%
1976	58,329	62,014	13,622	23.4%	630	1,273	(106)	15,419	24.9%
1977	60,040	64,243	14,058	23.4%	870	1,512	(92)	16,348	25.4%
1978	62,086	67,827	14,760	23.8%	502	1,613 RS1	(70)	16,805	24.8%
1979	64,345	69,796	15,361	23.9%	509	2,127	(78)	17,919	25.7%
1980	63,600	67,166	14,922	23.5%	473	2,637	(87)	17,945	26.7%
1981	64,259	67,957	15,037	23.4%	480	2,282	(79)	17,720	26.1%
1982	60,952	64,730	14,433	23.7%	487	2,232	(74)	17,078	26.4%
1983	66,749	71,166	15,648	23.4%	475	2,705	(100)	18,728	26.3%
1984	70,248	76,936	16,724	23.8%	460	3,456	(110)	20,530	26.7%
1985	68,683	76,133	16,371	23.8%	529 RS2	3,556	(87)	20,369	26.8%
1986	72,505	79,755	17,935	24.7%	593	4,093	(99)	22,522	28.2%
1987	75,949	83,482	18,694	24.6%	657	4,809	(128)	24,033	28.8%
1988	78,085	85,504	19,684	25.2%	703	5,953	(160)	26,179	30.6%
1989	78,355	85,155	20,220	25.8%	722	6,307	(173)	27,076	31.8%
1990 R	80,344	86,696	21,736	27.1%	977 RS4	6,505 RS3	(123)	29,095	33.6%
1991 P	81,064	84,900	23,513	29.0%	1,095	6,598	(122)	31,084	36.6%

Paper and Board Production includes all grades of paper, paperboard, wet machine board, construction paper and board, excluding hard pressed board.

New Supply equals production plus imports less exports, excluding hard pressed board.

Imports and exports include paper and paperboard converted products.

Utilization Rate is the ratio of recovered paper consumption to total production of paper and board.

Recovery Rate is the ratio of recovered paper collected to new supply of paper and paperboard.

Total Paper Recovered is the sum of Recovered Paper Consumption at Paper and Board Mills, other uses and exports less imports.

RS1 - Recovered paper exports, 1978 - 1989, adjusted by data from Canadian Pulp and Paper Association.

RS2 - Data on other uses for recovered paper revised to reflect additional information on such uses as recovered paper for animal bedding and for insulation.

RS3 - Recovered paper exports reported by the U.S. Bureau of the Census.

RS4 - Data on other uses revised to reflect 1991 API survey.

R - Revised. P - Preliminary.

TABLE XX
UNITED STATES
RECOVERED PAPER
1983 – 1991
(Thousands of Tons)

GRADE AND YEAR	Consumption at Paper and Board Mills	Consumption for Molded Pulp Insulation and Other	Exports	RS	Sub Total	Imports	Total Recovered
Corrugated							
1983	7,443	–	1,106		8,549	(14)	8,535
1984	7,972	–	1,409		9,380	(17)	9,364
1985	7,900	–	1,467		9,367	(5)	9,362
1986	8,634	–	1,738		10,371	(7)	10,365
1987	9,177	–	2,134		11,311	(13)	11,298
1988	9,909	–	2,482		12,391	(12)	12,379
1989	9,994	–	2,919		12,912	(28)	12,885
1990	10,687 R	–	2,731		13,418	(11)	13,407
1991	11,416 P		2,749		14,165	(11)	14,155
Old Newspapers							
1983	2,517 R	475	504		3,496	(18)	3,478
1984	2,736	459	594		3,789	(15)	3,774
1985	2,696	529	668		3,893	(29)	3,865
1986	2,925	593	801		4,319	(31)	4,288
1987	2,936	657	930		4,523	(30)	4,493
1988	3,013	703	1,069		4,785	(30)	4,755
1989	3,416	722	1,281		5,419	(29)	5,391
1990	3,812 R	977	1,257		6,045	(23)	6,022
1991	4,200 P	1,095	1,305		6,600	(20)	6,580
Mixed							
1983	1,908	–	633		2,541	(62)	2,479
1984	1,975	–	826		2,801	(69)	2,732
1985	1,902	–	854		2,755	(44)	2,711
1986	2,045	–	681		2,726	(43)	2,683
1987	2,116	–	725		2,841	(65)	2,776
1988	2,182	–	823		3,005	(96)	2,908
1989	2,356	–	854		3,210	(70)	3,139
1990	2,505 R	–	1,146		3,651	(60)	3,591
1991	2,734 P	–	1,005		3,739	(51)	3,687
Pulp Substitutes							
1983	2,456	–	224	RS	2,680	(6)	2,675
1984	2,673	–	302		2,975	(6)	2,969
1985	2,494	–	224		2,718	(3)	2,715
1986	2,762	–	390		3,152	(3)	3,149
1987	2,903	–	454		3,357	(2)	3,355
1988	2,890	–	696		3,586	(3)	3,583
1989	2,642	–	344		2,987	(13)	2,974
1990	2,732 R	–	394		3,126	(6)	3,120
1991	2,857 P	–	575		3,432	(17)	3,414
High Grade Deinking							
1983	1,323	–	238	RS	1,561	(1)	1,560
1984	1,369	–	325		1,694	(3)	1,691
1985	1,380	–	342		1,722	(7)	1,716
1986	1,570	–	483		2,053	(16)	2,037
1987	1,564	–	566		2,129	(18)	2,111
1988	1,691	–	883		2,574	(19)	2,554
1989	1,812	–	909		2,721	(33)	2,688
1990	2,000 R	–	977		2,977	(22)	2,955
1991	2,308 P	–	964		3,271	(23)	3,248
Total All Grades							
1983	15,647	475	2,705		18,827	(100)	18,727
1984	16,725	460	3,456		20,641	(110)	20,531
1985	16,371	529	3,556		20,456	(88)	20,368
1986	17,935	593	4,093		22,621	(99)	22,522
1987	18,695	657	4,809		24,161	(128)	24,033
1988	19,685	703	5,953		26,340	(161)	26,179
1989	20,220	722	6,307		27,249	(173)	27,077
1990	21,735 R	977 R	6,505		29,217	(123)	29,094
1991	23,513 P	1,095	6,598		31,206	(122)	31,084

Less than 500 tons. * Exports included with pulp substitutes. R – Revised. P – Preliminary.
RS – Export data, 1980 – 1988, revised to reflect additional data from Canadian Pulp and Paper Association.
Beginning with 1989, export data, as reported by the Bureau of the Census, based on the Harmonized Code System.

TABLE XXIA

UNITED STATES PRODUCTION OF WOOD PULP

1981 - 1991

(Thousands of Tons)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
WOOD PULP, TOTAL 1/	53,397	50,379	53,503	56,520	54,957	57,802	60,240	61,760	62,598	63,649	64,418
Total API Grades 2/	52,042	49,334	52,453	55,470	54,147	57,002	59,550	61,160	61,998	63,049	63,818
Sp. Alpha & Dissolving Grades	1,353	1,092	1,261	1,206	1,174	1,257	1,311	1,367	1,425	1,293	1,370
Paper and Board Grades	52,044	49,287	52,242	55,314	53,783	56,545	58,929	60,393	61,173	62,356	63,048
API Paper & Board Grades	50,689	48,242	51,192	54,264	52,973	55,745	58,239	59,793	60,573	61,756	62,448
Total Sulfite	1,802	1,587	1,616	1,618	1,560	1,439	1,440	1,560	1,563	1,561	1,511
Bleached Sulfite	1,403	1,242	1,306	1,359	1,364	1,275	1,269	1,365	1,373	1,393	1,511
Unbl. Sulfite	399	345	310	259	196	164	171	195	190	167	*
Total Sulfate	39,644	37,891	40,697	43,071	42,136	44,639	46,853	47,933	48,618	49,632	50,439
Bl. & Semi-Bl. 3/	20,070	19,721	21,107	22,350	22,626	24,158	25,411	26,302	26,949	27,559	28,382
Unbl. Sulfate	19,574	18,170	19,590	20,721	19,510	20,481	21,442	21,631	21,669	22,072	22,057
Total Groundwood	5,319	5,064	5,067	5,506	5,251	5,476	5,700	5,943	6,029	6,345	6,404
Stone and Refiner	3,735	3,395	3,225	3,361	3,118	3,010	2,960	3,089	3,058	3,131	3,025
Thermo-mechanical	1,584	1,669	1,842	2,145	2,133	2,466	2,740	2,854	2,971	3,215	3,379
Semichemical	3,924	3,700	3,812	4,069	4,026	4,191	4,246	4,357	4,363	4,219	4,094
Total Other	1,355	1,045	1,050	1,050	810	800	690	600	600	600	600
Defib. or Exploded 4/	850	625	620	620	550	540	440	400	400	400	400
Scr., Damaged E	90	20	30	30	30	30	25	25	25	25	25
Groundwood E	415	400	400	400	230	230	225	175	175	175	175

SOURCE: Pulp, Materials and Technology Group - API

NOTES: 1/ These totals are comparable to the capacity data published on Table XIII, Wood Pulp Capacity. Excludes defibrated and Exploded Wood Pulp for Hard Pressed Board. 2/ Excludes Total Other.

4/ Estimated to exclude wood pulp for hardboard. Source of original data is Bureau of the Census.

E - Estimated. * - Combined with Bleached Sulfite.

TABLE XXIB

UNITED STATES PRODUCTION OF MARKET WOOD PULP

1981 - 1991

(Thousands of Tons)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MARKET WOOD PULP, TOTAL	6,202	5,733	6,527	6,899	6,801	7,573	8,112	8,566	8,663	8,798	9,028
Sp. Alpha & Dissolving Paper Grade	1,350	1,089	1,260	1,204	1,172	1,252	1,308	1,365	1,423	1,292	1,368
Chemical Total	4,852	4,643	5,255	5,680	5,614	6,316	6,804	7,201	7,240	7,506	7,660
Bleached Sulfite	263	205	230	262	223	224	245	266	237	251	223
Unbleached Sulfite	3	0	0	0	0	0	0	0	0	0	0
Bl. & Semi-Bl. Sulfate	4,442	4,315	4,883	5,264	5,242	5,939	6,377	6,658	6,842	7,046	7,233
Unbleached Sulfate	144	123	142	154	149	153	182	277	161	209	204
Paper Grades - Other	0	1	12	15	15	5	0	0	0	0	0

SOURCE: Pulp, Materials and Technology Group - API

Chart 15

WOOD PULP PRODUCTION-1981
PRODUCTION - 52,042,000 Tons

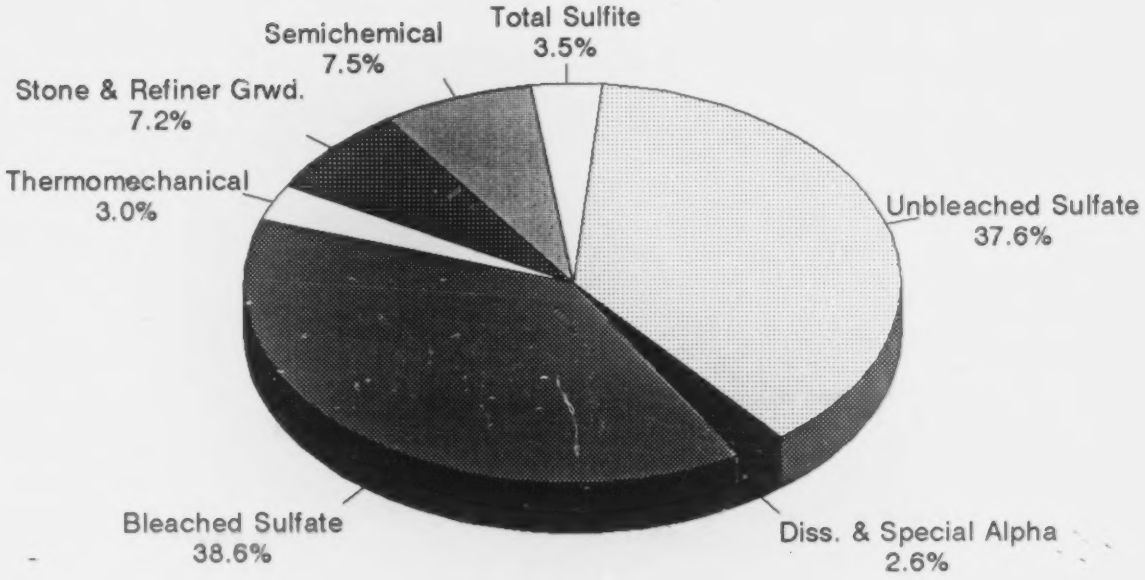


Chart 16

WOOD PULP PRODUCTION-1991
PRODUCTION - 63,818,000 Tons

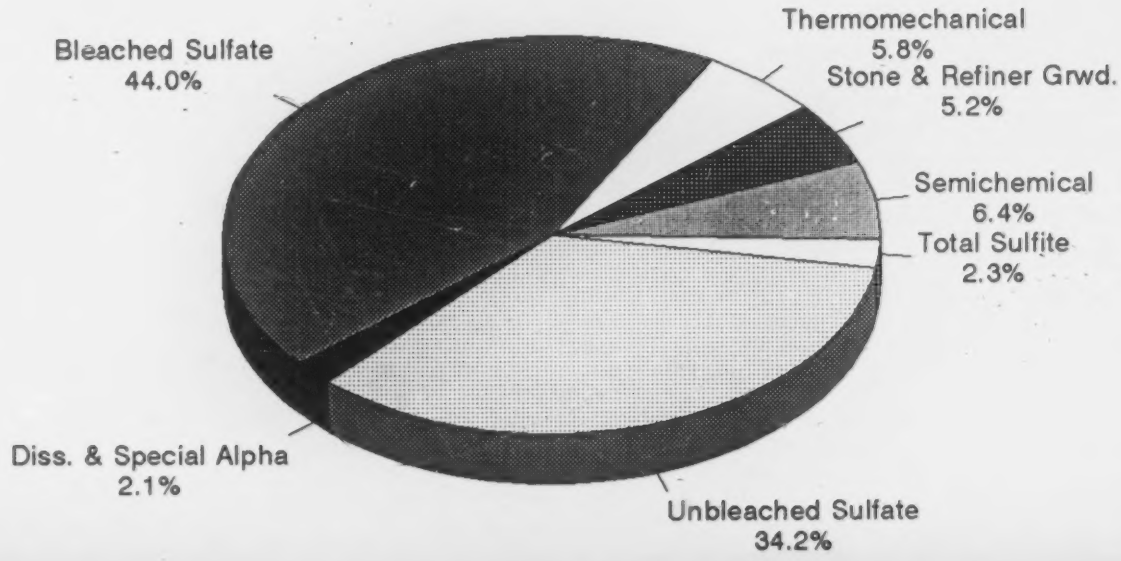


TABLE XXII

CONSUMPTION OF PULPWOOD, WOOD PULP AND OTHER FIBROUS MATERIALS

IN PAPER AND PAPERBOARD MILLS

1981 - 1991

(000 Short Tons)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 R	1991 P
TOTAL WOOD PULP*	51,437	48,706	52,072	55,644	54,271	57,792	59,240	60,915	60,791	61,572	62,079
WOOD PULP AT PAPER & PAPERBOARD MILLS	50,497	48,061	51,422	54,994	53,682	57,222	58,675	60,395	60,251	61,032	61,539
Special Alpha and Dissolving Grades	38	30	37	34	34	41	34	22	22	22	30
Bleached Sulfite	1,591	1,500	1,592	1,660	1,615	1,659	1,779	1,834	1,770	1,705	1,882
Unbleached Sulfite	464	465	435	413	341	309	296	311	311	266	***
Bleached Sulfate	18,992	19,090	20,376	21,755	22,332	23,994	24,593	25,848	25,652	25,981	26,651
Unbleached Sulfate	19,887	18,252	19,803	21,092	19,599	21,108	21,525	21,770	21,929	22,296	22,316
Groundwood	4,391	3,889	3,944	3,877	3,516	3,347	3,256	3,319	3,298	3,364	3,221
Thermomechanical	1,468	1,471	1,670	2,160	2,252	2,527	2,801	2,899	3,004	3,250	3,417
Semichemical	3,666	3,364	3,565	4,003	3,993	4,237	4,390	4,392	4,265	4,146	4,022
Defibrated or Expl. E	850	625	) 650	) 650	) 589	) 570	) 565	) 520	) 540	) 540	) 540
Screenings, Damaged	90	20	)	)	)	)	)	)	)	)	)
OTHER FIBROUS MATERIALS											
TOTAL	15,629	14,882	16,069	17,089	16,666	18,248	19,014	20,061	20,537	22,004	23,777
Recovered Paper	15,037	14,433	15,638	16,724	16,371	17,935	18,694	19,684	20,219	21,736	23,513
All Other, incl. Straw, Rags, etc.	592	449	431	365	295	313	320	377	318	268	264
ALL FIBROUS MATERIALS											
TOTAL	67,066	63,588	68,141	72,733	70,937	76,040	78,254	80,976	81,328	83,576	85,856
PULPWOOD, TOTAL**	81,178	76,257	85,442	87,646	85,744	91,434	93,946	95,497	98,414	99,109	98,242
Softwood	59,631	55,954	61,947	62,558	60,610	63,127	65,177	65,997	68,058	68,442	67,057
Hardwood	21,547	20,303	23,495	25,088	25,134	28,307	28,769	29,500	30,356	30,667	31,185
Receipts of Residues	30,590	31,152	32,755	32,072	30,496	32,754	32,899	33,186	34,540	35,727	34,079
CONSUMPTION OF WOOD PULP IN OTHER THAN PAPER AND PAPERBOARD MILLS											
TOTAL WOOD PULP	788	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sp.Alpha & Dis.	609	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Other Wood Pulps	196	179	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

SOURCE: Consumption of wood pulp in paper and board mills, 1977-1989 - Bureau of Census, Industry Division
Consumption of recovered paper - American Paper Institute
Consumption of other fibrous materials - Bureau of Census, Industry Division, 1974-1980; A.P.I., 1981-1990
Consumption of plywood - American Pulpwood Association. * Includes wood pulp consumed at paper, paperboard, construction paper and insulation board mills. ** Includes slabs, chips and mill waste.
All pulpwood data in thousands of cords. *** Combined with Bleached Sulfite.
R - Revised E - Estimated by American Paper Institute P - Preliminary N.A. - Not Available

NOTE: Details may not add to totals due to rounding of figures to nearest thousand.
Recovered paper consumption - Bureau of the Census data (000 tons)
1972 - 11,703; 1973 - 12,374; 1974 - 12,098; 1975 - 10,367; 1976 - 11,874; 1977 - 12,103;
1978 - 12,586; 1979 - 13,012; 1980 - 12,583; 1981 - 12,872; 1982 - 13,563; 1983 - 14,170; 1984 - 14,944;
1985 - 14,818; 1986 - 15,419; 1987 - 16,996; 1988 - 17,537; 1989 - 17,964. Bleached pulp includes semibleached.

Chart 17

CONSUMPTION OF FIBROUS RAW MATERIALS AT PAPER AND PAPERBOARD MILLS - 1981

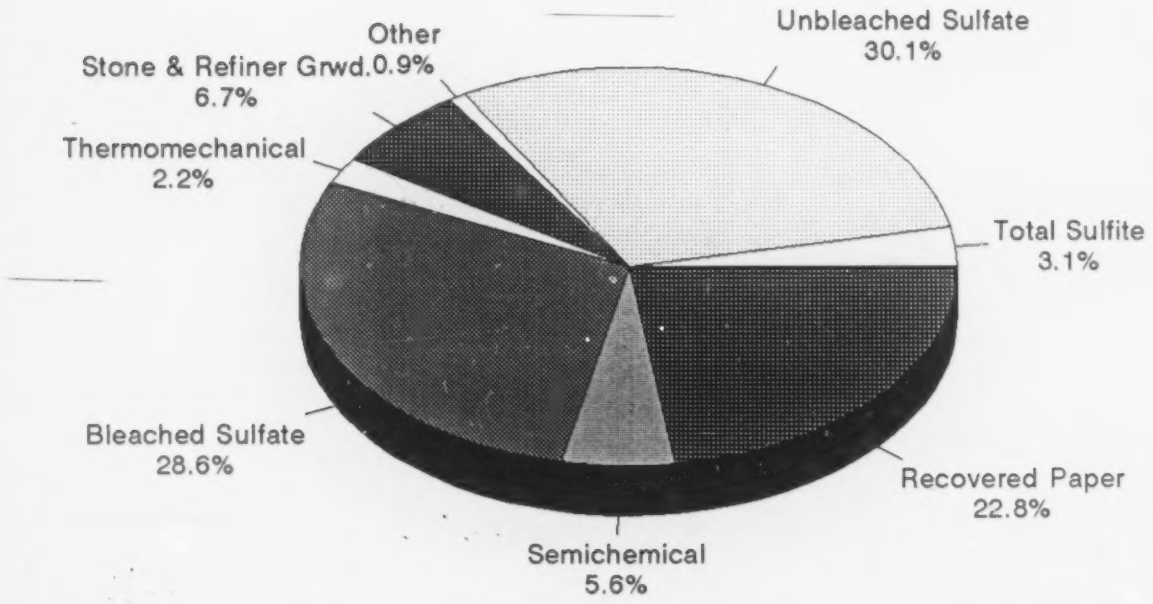


Chart 18

CONSUMPTION OF FIBROUS RAW MATERIALS AT PAPER AND PAPERBOARD MILLS - 1991

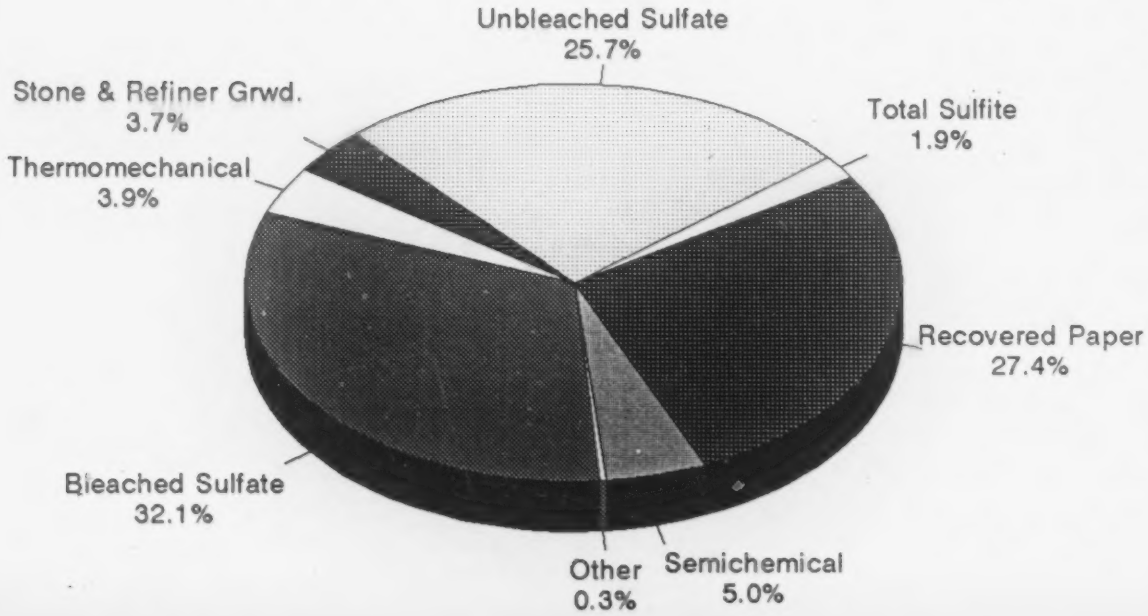


TABLE XXIII

WAGE RATES AND EMPLOYMENT

PAPER AND ALLIED PRODUCTS INDUSTRY

1976 – 1991

YEAR	Average Hourly Earnings (Dollars)	Average Weekly Earnings (Dollars)	Average Weekly Hours	Employees Total (Thousands)	Employees Production Workers (Thousands)
PAPER AND ALLIED PRODUCTS – SIC 26					
1976	5.47	232.48	42.5	675.5	508.3
1977	5.96	255.68	42.9	691.6	518.2
1978	6.52	279.71	42.9	698.7	524.7
1979	7.13	303.74	42.6	706.8	535.6
1980	7.84	330.85	42.2	692.8	522.7
1981	8.60	365.50	42.5	688.5	518.4
1982	9.32	389.58	41.8	662.4	493.9
1983	9.93	423.02	42.6	661.2	494.5
1984	10.41	448.67	43.1	680.9	511.6
1985	10.83	466.77	43.1	677.7	512.1
1986	11.18	482.98	43.2	673.7	511.0
1987	11.43	496.06	43.4	680.1	516.3
1988	11.65	503.28	43.2	692.6	523.8
1989	11.93	516.57	43.3	697.4	521.8
1990	12.30	532.59	43.3	698.1 R	523.5 R
1991	12.73	551.21	43.3	688.2	517.6
PAPER AND PULP* – SIC 261,262,266 *					
1976	6.12	272.95	44.6	203.9	156.4
1977	6.75	302.40	44.8	205.4	157.3
1978	7.44	334.80	45.0	200.1	151.1
1979	8.26	372.53	45.1	205.9	154.7
1980	9.15	407.18	44.5	203.3	152.2
1981	10.06	449.68	44.7	203.8	153.2
1982	10.87	480.45	44.2	198.5	149.0
1983	11.70	520.65	44.5	198.0	149.0
1984	12.43	559.35	45.0	200.0	150.6
1985	13.14	591.30	45.0	197.0	149.4
1986	13.63	616.08	45.2	194.5	148.8
1987	14.01	638.86	45.6	191.8	145.9
1988 E	14.31	648.24	45.3	194.4	147.8
1989 E	14.73	661.55	44.9	193.4	146.9
1990 E	15.19	684.82	45.1	194.2 R	147.1 R
1991 E	15.88	714.17	45.0	195.5	148.6
PAPER MILLS EXCEPT BUILDING PAPER – SIC 262					
1976	6.10	273.89	44.9	176.4	134.2
1977	6.70	300.83	44.9	175.7	133.6
1978	7.43	336.58	45.3	170.3	127.6
1979	8.24	374.92	45.5	176.8	131.5
1980	9.09	408.14	44.9	175.0	129.7
1981	10.00	454.00	45.4	175.6	130.9
1982	10.86	485.44	44.7	171.3	127.2
1983	11.70	524.16	44.8	173.7	128.5
1984	12.46	563.19	45.2	175.5	130.7
1985	13.21	592.72	44.9	177.0	133.2
1986	13.70	617.62	45.4	173.8	132.1
1987	14.07	641.67	45.8	171.9	130.1
1988	14.33	646.87	45.4	176.2	133.2
1989	14.65	662.23	45.2	177.9	134.7
1990	15.10	682.22	45.2	180.2 R	136.2 R
1991	15.56	701.58	45.1	181.5	137.9

SOURCE: Bureau of Labor Statistics, Employment and Earnings, Tables B–2 and C–2, U.S. Department of Labor, Washington, D.C.
NOTE: Data on hours and earnings refer to Production Non–Supervisory Workers.
E – Estimated by American Paper Institute from BLS data.
* – Industry 266 discontinued after 1967; Building paper including with Paper (262), Insulating Board transferred to Industry 24.

TABLE XXIII (Cont.)

WAGE RATES AND EMPLOYMENT

PAPER AND ALLIED PRODUCTS INDUSTRY

1976 – 1991

YEAR	Average Hourly Earnings (Dollars)	Average Weekly Earnings (Dollars)	Average Weekly Hours	Employees Total (Thousands)	Employees Production Workers (Thousands)
PAPERBOARD – SIC 263					
1976	6.40	280.32	43.8	65.6	52.2
1977	6.94	312.30	45.0	66.9	52.4
1978	7.67	340.55	44.4	67.3	52.8
1979	8.38	367.88	43.9	65.5	51.9
1980	9.28	408.32	44.0	65.1	51.0
1981	10.23	450.12	44.0	63.5	49.8
1982	11.11	474.40	42.7	60.4	46.7
1983	12.11	525.57	43.4	58.2	44.5
1984	12.99	575.46	44.3	57.2	43.8
1985	13.60	599.76	44.1	55.3	42.4
1986	13.98	619.31	44.3	53.6	40.8
1987	14.30	632.06	44.2	53.6	40.4
1988	14.49	643.36	44.4	52.9	40.2
1989	14.76	661.25	44.8	52.2	40.0
1990	15.26	695.86	45.6	52.1 R	40.0
1991	15.71	711.66	45.3	50.4	39.1
MISCELLANEOUS CONVERTED PAPER PRODUCTS – SIC 267					
1976	4.92	202.21	41.1	200.8	140.8
1977	5.33	219.60	41.2	210.2	147.5
1978	5.82	239.20	41.1	217.8	155.9
1979	6.31	259.34	41.1	221.4	163.7
1980	6.89	279.73	40.6	219.6	162.7
1981	7.58	310.02	40.9	220.1	162.0
1982	8.20	332.10	40.5	213.5	154.7
1983	8.71	361.47	41.5	214.4	155.8
1984	9.09	379.05	41.7	226.5	165.4
1985	9.33	390.93	41.9	228.5	168.0
1986	9.62	403.08	41.9	229.0	168.8
1987	9.90	416.79	42.1	232.8	172.9
1988	10.13	424.45	41.9	239.2	171.5
1989	10.48	440.16	42.0	241.9	172.8
1990	10.79	454.26	42.1	242.2 R	174.6 R
1991	11.15	466.07	41.8	235.2	169.3
PAPERBOARD CONTAINERS & BOXES – SIC 265					
1976	4.95	204.44	41.3	205.2	158.9
1977	5.36	224.05	41.8	209.1	161.0
1978	5.89	247.97	42.1	213.5	164.9
1979	6.37	263.08	41.3	214.0	165.4
1980	6.94	285.93	41.2	204.9	156.8
1981	7.53	312.50	41.5	201.2	153.5
1982	8.16	329.66	40.4	190.0	143.6
1983	8.60	358.62	41.7	190.8	145.1
1984	8.92	377.32	42.3	197.2	151.8
1985	9.24	389.00	42.1	196.9	152.3
1986	9.58	407.15	42.5	196.6	152.6
1987	9.77	416.20	42.6	201.8	157.1
1988	10.01	428.43	42.8	206.8	160.6
1989	10.17	435.26	42.8	209.8	162.1
1990	10.39	442.61	42.6	209.6 R	161.8 R
1991	10.72	458.82	42.8	206.8	160.3

SOURCE: Bureau of Labor Statistics, Employment and Earnings, Tables B-2 and C-2, & Labstat Series Report, U.S. Dept. of Labor, Washington, D.C.

NOTE: Data on hours and earnings refer to Production Non-Supervisory Workers. R – Revised.

TABLE XXIV

INDEX OF OUTPUT PER EMPLOYEE-HOUR (1982 = 100)

PULP, PAPER AND BOARD MILLS

1950 - 1991

YEAR	Output per Employee Hour: Production Workers	Output per Employee Hour: All Employees	Output	Employee Hours: Production Workers	Employee Hours: All Employees
1950	30.8	34.2	35.6	115.5	104.0
1951	32.4	35.7	38.8	119.8	108.6
1952	32.0	35.0	36.9	115.4	105.4
1953	32.0	35.0	39.4	123.3	112.6
1954	33.4	36.3	40.2	120.3	110.7
1955	35.5	38.8	45.0	126.7	115.9
1956	37.4	40.5	47.7	127.6	117.8
1957	37.7	40.5	46.5	123.2	114.8
1958	38.8	41.5	46.7	120.3	112.5
1959	41.2	44.0	52.0	126.1	118.1
1960	43.0	45.5	53.2	123.7	117.0
1961	45.9	48.4	54.8	119.4	113.3
1962	47.6	50.3	57.7	121.1	114.8
1963	50.5	53.2	60.8	120.4	114.3
1964	53.1	56.0	64.7	121.9	115.6
1965	56.0	58.8	68.5	122.3	116.5
1966	58.8	61.7	73.8	125.5	119.7
1967	58.1	60.7	73.6	126.6	121.2
1968	61.4	64.5	79.1	128.8	122.6
1969	63.7	67.1	83.3	130.7	124.1
1970	66.7	69.6	82.5	123.7	118.6
1971	70.5	72.7	83.4	118.3	114.7
1972	76.3	78.9	90.0	118.0	114.0
1973	79.4	82.2	94.2	118.7	114.6
1974	79.6	82.2	93.8	117.8	114.1
1975	77.1	77.8	79.6	103.2	102.3
1976	83.6	85.4	92.7	110.9	108.6
1977	88.0	89.8	97.0	110.3	108.0
1978	91.3	92.7	99.3	108.8	107.1
1979	93.5	94.7	102.8	110.0	108.6
1980	93.6	94.4	102.1	109.2	108.1
1981	92.8	93.7	99.3	107.1	105.9
1982	100.0	100.0	100.0	100.0	100.0
1983	106.9	107.4	107.6	100.8	100.2
1984	108.2	108.7	111.6	103.1	102.7
1985	111.2	110.6	112.1	100.9	101.4
1986	119.7	120.1	118.9	99.3	99.0
1987	123.9	124.0	123.0	99.3	99.2
1988 R	126.4	127.2	128.2	101.4	100.8
1989 R	127.1	128.1	128.5	101.1	100.3
1990 R	129.4	130.2	131.2	101.4	100.8
1991 R	130.8	132.1	132.7	101.4	100.4

SOURCE: U.S. Department of Labor - Bureau of Labor Statistics: 1967-1990
American Paper Institute calculations from BLS data: 1950-1966, 1991

R: Revised

TABLE XXV

COMPENSATION OF EMPLOYEES IN THE PAPER AND ALLIED PRODUCTS INDUSTRY

IN THE GROSS DOMESTIC PRODUCT ACCOUNTS

1950 - 1991

YEAR	COMPENSATION OF EMPLOYEES Total	Wages and Salaries	Supplements to Wages & Salaries *	Corporate Capital Consumption Allowance	Number of Full Time Equivalent Employees	Number of Full Time & Part Time Employees	Average Annual Earnings per Full Time Equivalent Employee
	(Millions of Dollars)				(000)	(000)	(Dollars)
1950	1,788	1,686	102	154	482	485	3,498
1951	2,057	1,923	134	179	504	510	3,815
1952	2,143	2,004	139	204	497	504	4,032
1953	2,375	2,224	151	234	523	533	4,252
1954	2,457	2,292	165	275	522	534	4,391
1955	2,684	2,499	185	338	537	551	4,654
1956	2,919	2,712	207	370	554	570	4,895
1957	3,038	2,812	226	419	555	567	5,067
1958	3,117	2,868	249	464	542	558	5,292
1959	3,436	3,152	284	474	567	582	5,559
1960	3,596	3,288	308	496	576	592	5,708
1961	3,791	3,464	327	541	582	599	5,952
1962	4,042	3,678	364	653	598	615	6,151
1963	4,222	3,828	394	665	605	622	6,327
1964	4,446	4,028	418	721	607	625	6,636
1965	4,696	4,250	446	734	628	640	6,768
1966	5,133	4,616	517	771	656	667	7,037
1967	5,415	4,876	539	837	672	680	7,256
1968	5,885	5,267	618	898	681	691	7,734
1969	6,496	5,768	728	955	705	713	8,182
1970	6,788	5,994	794	1,007	694	702	8,637
1971	7,039	6,172	867	1,060	669	679	9,226
1972	7,708	6,704	1,004	1,167	674	684	9,947
1973	8,466	7,290	1,176	1,249	689	700	10,581
1974	9,216	7,885	1,331	1,281	688	701	11,461
1975	9,350	7,921	1,429	1,435	628	642	12,613
1976	10,909	9,167	1,742	1,667	662	673	13,847
1977	12,192	10,182	2,010	1,889	679	692	14,996
1978	13,498	11,219	2,279	2,126	690	700	16,259
1979	14,965	12,379	2,586	2,128	697	707	17,760
1980	16,199	13,384	2,815	2,564	681	691	19,653
1981	17,658	14,541	3,117	2,842	679	687	21,409
1982	18,250	14,994	3,256	3,287	649	663	23,103
1983	19,459	15,994	3,465	3,403	650	662	24,606
1984	21,180	17,476	3,704	4,304	666	680	26,240
1985	21,986	18,280	3,706	5,157	667	679	27,406
1986	23,043	19,127	3,916	5,158	664	676	28,806
1987 R	23,929	19,854	4,075	5,723	668	677	29,722
1988 R	25,387	21,014	4,373	N.A.	678	689	30,994
1989 R	26,575	21,897	4,678	N.A.	686	696	31,920
1990 R	27,852	22,844	4,735	N.A.	691	701	33,059
1991 E	28,421	23,615	4,806	N.A.	690	695	34,225

SOURCE: Bureau of Economic Analysis, Department of Commerce, Gross Domestic Product Accounts, Table 6
* - Total less Wages & Salaries P - Preliminary R - Revised E - Estimated N.A. - Not Available

TABLE XXVI

PAPER AND ALLIED PRODUCTS

EXPENDITURES ON NEW PLANT AND EQUIPMENT

1950 – 1992

(Million Dollars)

YEAR	BY PAPER AND ALLIED PRODUCTS COMPANIES	Total SIC 26	PRIMARY MILLS					CONVERTING PLANTS		
			Total Primary 261–3,6	Pulp Mills 261	Paper Mills 262	Paperboard Mills 263	Building Paper & Board Mills 266	Total Converting 264,5	Converted Paper Products 264	Paperboard Containers & Boxes 265
1950	327	299	212	(	212 a	)	a	87	51	36
1951	420	389	263	(	263 a	)	a	126	61	65
1952	384	371	274	(	274 a	)	a	97	61	36
1953	409	397	276	(	276 a	)	a	121	74	47
1954	455	533	371	(	371 a	)	a	162	(162	)
1955	510	556	389	(	389 a	)	a	167	(167	)
1956	800	750	548	(	548 a	)	a	202	106	96
1957	810	767	585	(	585 a	)	a	182	(182	)
1958	570	634	417	43	259	102	13	218	82	136
1959	650	686	453	92	215	117	29	b 233	79 i	154
1960	770	658	442	35	246	136	25	b 216	1071 i	109
1961	620	685	473	49	285	108	31	b 212	99	113
1962	620	742	459	34	277	126	22	b 283	122 i	161
1963	700	708	440	39	233	160	8	270	129	141
1964	910	902	589	67	296	214	12	313	153	160
1965	1,020	1,186	826	112	496	200	18	359	180	179
1966	1,320	1,422	961	113	575	255	18	461	212	249
1967	1,490	1,585	1,122	122	581	399	20	463	226	237
1968	1,220	1,238	766	77	487	185	17	473	231	242
1969	1,620	1,421	879	133	555	158	33	543	263	280
1970	1,740	1,397	882	122	503	239	18	516	289	227
1971	1,290	1,197	755	135	374	228	18	442	262	180
1972	1,460	1,335	841	136	372	314	19	495	289	206
1973	1,990	1,530	997	119	508	344	26	531	304	227
1974	2,880	2,214	1,558	136	723	637	63	657	315	342
1975	2,930	2,718	1,959	294	832	807	26	759	412	347
1976	2,990	3,010	2,282	375	1,044	844	19	729	394	335
1977	3,480	3,295	2,367	301	1,115	934	17	928	507	421
1978	3,780	3,736	2,638	195	1,424	1,000	19	1,100	604	496
1979	5,180	4,447 *	3,231	240	1,714	1,229	48	1,216	725	491
1980	6,390	5,128 *	3,726	250	1,897	1,539	40	1,402	774	628
1981	5,950	5,202	3,957	521	2,435	974	27	1,245	746	499
1982	5,470	5,087	3,820	659	1,869	1,278	14	1,267	780	487
1983	5,730	4,987	3,497	916	2,239	527	15	1,290	820	470
1984	6,900	5,302	3,713	600	2,412	680	21	1,587	906	681
1985	8,140	6,273	4,290	745	2,484	1,043	18	1,982	1,218	764
1986	8,260	6,084	4,038	875	2,153	1,000	10	2,046	1,247	799
1987	8,540	5,753	3,764 *1)	231	2,760 1)	773	N.A. 3)	1,989	1,200 2)	789
1988	10,920	7,211	5,126 1)	309	3,300 1)	1,518	N.A. 3)	2,084	1,251 2)	833
1989	15,580	10,067	7,587 1)	697	5,237 1)	1,653	N.A. 3)	2,481	1,515 2)	965
1990	16,530	10,809	8,307 1)	1,054	4,277 1)	2,977	N.A. 3)	2,501	1,504 2)	998
1991	11,630 R	----------	----------	----------	----------	N.A.	----------	----------	----------	----------
1992	11,300 E	----------	----------	----------	----------	N.A.	----------	----------	----------	----------

SOURCE: Paper and Allied Products Companies, Bureau of Economic Analysis.
Paper and Allied Products Establishments, Bureau of the Census.

NOTE: Establishment data for 1982, 1972, 1967, 1962, 1958, 1954 and 1947 from Census of Manufactures; data for other years from Survey of Manufactures.

(a) Expenditures at building paper and board mills included with expenditures at pulp, paper and board mills.

(b) Data as originally published. (i) Imputed from available data.

N.A. – Not Available R – Revised E – Estimated by the Department of Commerce

* – Based on revised sampling techniques which resulted in some understatement of the total.

1) Includes building paper. 2) Revised to SIC 267. 3) Building paper included in 262; Insulating board moved to 24.

TABLE XXVIIA

CAPITAL EXPENDITURES FOR ENVIRONMENTAL PROTECTION PULP AND PAPER INDUSTRY

1966 – 1992

(Million Dollars)

YEAR	Water	Air	Solid Waste Disposal from Manufacturing	Total	Percent of Total Capital Expenditures
Through 1966	270	129	10	409	
1967	44	31	1 E	76	
1968	49	43	1	93	
1969	74	52	2	128	
1970	120	65	2	187	
1971	134	66	3	203	
1972	205	129	5	339	38%
1973	179	162	10	351	34%
1974	216	296	11	523	31%
1975	286	341	18	645	30%
1976	319	216	29	564	29%
1977	278	148	17	443	19%
1978	182	149	32	363	16%
1979	178	158	23	359	12%
1980	140	190	38	368	9%
1981	91	120	49	260	6%
1982	81	214	23	318	9%
1983	118	149	60	327	6%
1984	62	130	34	226	6%
1985	121	175	46	342	7%
1986	80	109	48	237	4%
1987	93	242	68	403	10%
1988	129	360	83	572	11%
1989	401	464	174	1,039	11%
1990 R	579	478	235	1,292	12%
1991 *	591	493	194	1,278	18%
Through 1991	5,020	5,109	1,216	11,345	
Planned 1992 *	530	321	314	1,165	N.A.

SOURCE: National Council of the Paper Industry for Air and Stream Improvement

E – Estimated R – Revised N.A. – Not Available

* – Estimated from incomplete data

TABLE XXVIIB

EXPENDITURES ON RESEARCH & DEVELOPMENT PAPER AND ALLIED PRODUCTS COMPANIES

1966–1990

(Million Dollars)

YEAR	Total Expenditures
1966	117
1967	128
1968	144
1969	188
1970	178
1971	187
1972	189
1973	194
1974	237
1975	249
1976	313
1977	333
1978	387
1979	445
1980	495
1981	566
1982	566
1983	552
1984	594
1985	576
1986	538
1987	604
1988	664
1989 R	686
1990 P	736

SOURCE: National Science Foundation

R – Revised

P – Preliminary

TABLE XXVIII

WOOD SUPPLY AND DEMAND

	Total	North-east	North Central	Great Plains	South-east	South Central	Pacific Northwest	Pacific Southwest	Rocky Mountain
Commercial: Forest Land in U.S. January 1, 1987	483.3	80.1	74.6	3.5	84.6	110.8	54.7	17.4	57.6
	---------- Million Acres --------								
Ownership									
Total Private	347.0	70.3	53.4	2.3	75.8	99.9	22.7	7.8	14.7
Forest Industry Companies	70.6	12.6	4.4	0	16.8	21.4	9.7	2.8	2.9
Other Private	276.4	57.7	49	2.3	59.0	78.4	13.0	5.1	11.8
Total Public	136.4	9.8	21.2	1.2	8.8	10.9	32.0	9.6	42.9
National Forest	85.2	2.2	7.3	0.9	4.9	6.9	19.5	8.7	34.8
Other Public	51.1	7.6	14.0	0.3	3.9	4.0	12.5	0.9	8.1
	---------- Million Cubic Feet----								
All Species									
Total Growth	22,526.0	2,948.0	2,564.0	86.0	5,169.0	5,260.0	3,412.0	1,046.0	2,041.0
Removals	16,451.0	1,302.0	1,406.0	42.0	4,167.0	4,531.0	3,342.0	830.0	829.0
Ratio of Growth to Removals	1.37	2.26	1.82	2.04	1.24	1.16	1.02	1.26	2.46
Softwoods									
Total Growth	12,870.0	702.0	587.0	47.0	2,972.0	2,877.0	2,877.0	889.0	1,909.0
Removals	11,367.0	521.0	205.0	26.0	2,836.0	2,906.0	3,239.0	819.0	817.0
Ratio of Growth to Removals	1.13	1.35	2.87	1.84	1.05	0.99	0.89	1.09	2.34
Hardwoods									
Total Growth	9,656.0	2246.0	1,977.0	38.0	2,197.0	2,383.0	535.0	157.0	131.0
Removals	5,083.0	781.0	1202.0	16.0	1,332.0	1,626.0	104.0	12.0	12.0
Total Growth	1.9	2.88	1.65	2.36	1.65	1.47	5.07	13.54	11.29

States by Region

Northeast	North Central	Great Plains	Southeast	South Central	Pacific Northwest	Pacific Southwest	Rocky Mountain
Connecticut	Illinois	Kansas	Florida	Alabama	Alaska	California	Arizona
Delaware	Indiana	Nebraska	Georgia	Arkansas	Oregon	Hawaii	Colorado
Maine	Iowa	North Dakota	N. Carolina	Kentucky	Washington		Idaho
Maryland	Michigan	South Dakota	S. Carolina	Louisiana			Montana
Massachusetts	Minnesota		Virginia	Mississippi			Nevada
New Hampshire	Missouri			Oklahoma			New Mexico
New Jersey	Ohio			Tennessee			Utah
New York	Wisconsin			Texas			Wyoming
Pennsylvania							
Rhode Island							
Vermont							
West Virginia							

SOURCE:

An Analysis of the Timber Situation in the United States: 1989-2040

Part I: The Current Resource and Use Situation

A Technical Document Supporting the 1989 RPA Assessment

Tables 3.2; 3.28; 3.29

Forest Service, U.S. Department of Agriculture

Data on Growth, Removals and Mortality refer to 1986

SECTION IV

FINANCIAL DATA ON THE PAPER INDUSTRY

The slow growth of the total economy during the past two years has not only depressed total demand for paper and allied products (see Tables I and II), but has also had a negative impact on industry dollar sales and earnings.

Table XXIX shows that net sales of paper and allied products companies in 1991, as first reported (consistent with 1990 data), were down by 3.1% from the 1990 total, even while total paper and paperboard production rose by 1% and market wood pulp output gained 2.6%. On this same basis, after-tax profits were halved in 1991, falling 52% below the year-ago level. This brought the ratio of after-tax profits to sales to 2.1% and after-tax profits to net worth to 5.0% -- both the lowest since the 1930's.

The Bureau of the Census, which compiles these data, regularly reviews the sales structure of the reporting corporations. As companies change their product mix, Census re-assigns them to the appropriate industry. In their report for the first quarter of 1992, Census revised the roster of paper and allied product corporations, resulting in an increase of $11 billion in 1991's total sales and $2.6 billion in net worth, from the previously-reported numbers. The new data showed that while the pre-tax profits were about $100 million higher, the ratio of pre-tax profits to sales was 2.9%, compared to the original 3.1%. In addition, the companies comprising the new total paid 22% more in income taxes, resulting in a lower level of profits, an after-tax profits to sales ratio of 1.8% and return on net worth of 4.6%.

The industry's cash inflow (after-tax profits plus depreciation) fared somewhat better, as depreciation charges rose in line with the record-high levels of capital expenditures evident during the past few years. Cash inflow was augmented by the increases in long-term debt necessary to finance these expenditures. The long-term debt to total capital ratio for the currently-defined industry was 48% in 1991, compared to 47% in 1990 and 34% ten years earlier. In that 12-year period (1980-1991) paper and allied products companies invested $110 billion on new plant and equipment, maintaining the U.S. paper industry as a world class producer.

The weakness in economic growth was also reflected in the price indexes published for paper and allied products by the Bureau of Labor Statistics and shown here on Tables XXXA and XXXB. The indexes show wood pulp prices down 21.2% from 1990 to 1991, paper prices off 1.5% and paperboard prices 4.1% lower. BLS requests actual transfer prices, but companies are not always able to report on this basis, and the reported indexes may show somewhat more strength than exists in the market.

Data on the structure of each of the 17 industries that comprise the paper and allied products group for 1989 and 1990 are presented in Table XXXI. The reports come from establishments, and are not fully consistent with the company data in Table XXIX.

TABLE XXIX

PAPER AND ALLIED PRODUCTS INDUSTRY

PROFIT AND LOSS DATA, CASH INFLOW AND SELECTED BALANCE SHEET DATA

1955 – 1991

(Millions of Dollars)

YEAR	Net Sales	Net Profit Before Taxes	Net Profit Before Taxes To Net Sales (%)	Income Taxes	Net Profit After Taxes	Net Profit After Taxes To Net Sales (%)	Depreci-a[illegible]	Cash Inflow	Gross Cash Flow
1955	9,847	1,208	12.2	601	604	6.1	[illegible]	917	1,515
1956	10,686	1,283	12.0	626	657	6.1	360	1,017	1,643
1957	10,420	1,020	9.8	497	521	5.0	376	897	1,394
1958 1/	10,256	899	8.8	440	460	4.5	406	866	1,306
1958 2/	10,658	987	9.3	481	506	4.7	423	929	1,410
1959	11,824	1,204	10.2	585	619	5.2	459	1,078	1,663
1960	11,764	1,135	9.6	548	587	5.0	480	1,069	1,613
1961	12,525	1,120	8.9	535	583	4.7	531	1,114	1,649
1962	13,698	1,212	8.8	584	628	4.6	583	1,211	1,795
1963	14,050	1,215	8.6	581	634	4.5	615	1,249	1,830
1964	14,771	1,312	8.9	557	754	5.1	641	1,395	1,952
1965 1/	16,224	1,488	9.2	619	869	5.4	671	1,539	2,159
1965 2/	15,217	1,271	8.4	517	753	4.9	632	1,385	1,902
1966	17,016	1,544	9.1	633	911	5.4	676	1,587	2,220
1967 2/	16,900	1,316	7.8	523	796	4.7	723	1,519	2,039
1968	18,738	1,534	8.2	645	889	4.7	780	1,669	2,314
1969	20,607	1,675	8.1	688	987	4.8	821	1,808	2,496
1970	21,069	1,211	5.7	492	719	3.4	869	1,588	2,080
1971 1/	22,224	967	4.4	455	512	2.3	926	1,438	1,893
1971 2/	----------	----------	----------	----------	N.A.	----------	----------	----------	----------
1972	23,324	1,584	6.8	643	941	4.0	959	1,900	2,543
1973 1/	26,503	2,481	9.4	1,040	1,441	5.4	1,012	2,453	3,493
1973 2/	----------	----------	----------	----------	N.A.	----------	----------	----------	----------
1974 1/	30,799	3,692	12.0	1,511	2,183	7.1	1,032	3,215	4,724
1974 2/	32,837	3,792	11.5	1,502	2,287	7.0	1,063	3,350	4,855
1975	32,044	2,901	5.7	1,099	1,801	5.6	1,219	3,019	4,120
1976	39,270	3,643	9.3	1,374	2,270	5.8	1,382	3,652	5,025
1977 1/	41,926	3,442	8.2	1,207	2,234	5.3	1,548	3,782	4,989
1977 2/	45,750	3,632	7.9	1,266	2,367	5.2	1,663	4,030	5,296
1978 1/	49,683	4,097	8.2	1,447	2,648	5.3	1,767	4,415	5,864
1978 2/	48,982	4,036	8.2	1,436	2,598	5.3	1,726	4,324	5,762
1979	55,359	5,406	9.8	1,683	3,723	5.7	1,896	5,619	7,302
1980 1/	59,333	4,318	7.3	1,275	3,042	5.1	2,075	5,119	6,392
1980 2/	54,737	4,014	7.3	1,233	2,781	5.1	1,990	4,771	6,004
1980 3/E	56,250	4,045	7.2	1,245	2,800	5.0	2,026	4,826	6,071
1981 1/	62,502	4,728	7.6	1,621	3,108	5.0	2,253	5,361	6,981
1981 2/	62,699	4,728	7.5	1,617	3,110	5.0	2,267	5,377	6,995
1982	60,293	2,120	3.5	660	1,460	2.4	2,379	3,839	4,499
1983 1/	66,100	3,439	5.2	1,102	2,337	3.5	2,645	4,982	6,084
1983 2/	65,008	3,424	5.3	1,096	2,327	3.6	2,607	4,934	6,031
1984	71,891	4,812	6.7	1,798	3,015	4.2	2,798	5,813	7,611
1985 1/	71,761	4,424	6.2	1,533	2,891	4.0	3,107	5,998	7,531
1985 2/	71,465	4,399	6.2	1,519	2,880	4.0	3,099	5,979	7,498
1986 1/	74,596	5,318	7.1	2,025	3,293	4.4	3,390	6,683	8,708
1986 2/4/	74,844	5,298	7.1	2,018	3,280	4.4	3,389	6,669	8,687
1987 1/	86,603	8,077	9.3	3,088	4,989	5.8	3,827	8,816	11,904
1987 2/	95,578	8,860	9.3	3,338	5,520	5.8	4,279	9,799	13,139
1988 1/	107,014	12,204	11.4	4,127	8,077	7.5	4,620	12,697	16,824
1988 2/	107,221	12,210	11.4	4,129	8,081	7.5	4,625	12,706	16,835
1989 1/	112,238	10,771	9.6	3,771	7,000	6.2	4,954	11,954	15,725
1989 2/	113,573	10,865	9.6	3,819	7,047	6.2	5,010	12,057	15,875
1990 1/	114,686	7,187	6.3	2,343	4,844	4.2	5,535	10,379	12,722
1990 2/	115,523	7,236	6.3	2,353	4,882	4.2	5,578	10,460	12,814
1991 1/	111,962	3,475	3.1	1,154	2,322	2.1	5,793	8,115	9,268
1991 2/	122,969	3,573	2.9	1,409	2,164	1.8	6,504	8,668	10,077

SOURCE: Yearly data calculated by API from Quarterly Financial Report for Manufacturing, Mining and Trade Corporations, now reported by the Bureau of Census.

NOTE: 1/ Data is from Source consistent with earlier reports. 2/ Revised series – change in corporations included in industry. 3/ Series revised based on change in adjustment factors. 4/ Excludes companies with less than $250,000 in assets. N.A. – Not Available E – Estimated by API with assistance from FTC

TABLE XXIX (Cont.)

PAPER AND ALLIED PRODUCTS INDUSTRY

PROFIT AND LOSS DATA, CASH INFLOW AND SELECTED BALANCE SHEET DATA

1955 – 1991

(Millions of Dollars)

YEAR	Cash Dividends	Retained Earnings	Net Cash Flow	Total Assets	Property Plant & Equipment Gross	Property Plant & Equipment Net	Net Worth	Long-Term Debt	Total Capital	Net Profit After Taxes To Net Worth (%)
1955	259	345	655	7,785	6,171	3,623	5,403	1,010	6,413	11.2
1956	273	384	744	8,492	7,028	4,213	5,772	1,286	7,058	11.4
1957	270	251	627	8,407	7,502	4,509	5,809	1,309	7,118	9.0
1958 1/	265	195	601	8,829	7,941	4,652	6,089	1,472	7,561	7.6
1958 2/	286	220	643	9,170	8,200	4,818	6,341	1,500	7,841	8.0
1959	290	329	788	9,721	8,740	5,062	6,642	1,512	8,154	9.3
1960	312	275	755	10,087	9,432	5,385	6,956	1,622	8,578	8.4
1961	328	255	786	11,051	10,447	5,857	7,612	1,719	9,331	7.7
1962	340	288	871	11,670	11,058	6,062	7,766	1,953	9,719	8.1
1963	348	286	901	11,859	11,420	6,079	7,886	1,964	9,850	8.0
1964	376	378	1,019	12,560	12,380	6,585	8,304	1,967	10,271	9.1
1965 1/	409	461	1,132	13,850	13,378	7,321	8,672	2,439	11,111	10.0
1965 2/	350	403	1,035	13,017	13,047	7,053	8,165	2,447	10,612	9.2
1966	372	539	1,215	14,621	14,662	8,131	8,710	3,104	11,814	10.5
1967 2/	391	405	1,128	15,645	15,403	8,579	9,011	3,736	12,747	8.8
1968	398	493	1,273	16,809	16,059	8,964	9,303	4,199	13,502	9.6
1969	418	569	1,390	18,794	17,169	9,529	10,212	4,267	14,479	9.7
1970	430	289	1,158	19,679	18,160	9,969	10,305	4,822	15,127	7.0
1971 1/	418	94	1,020	20,424	19,001	10,194	10,652	5,239	15,891	4.8
1971 2/	N.A.	N.A.	N.A.	19,582	18,558	9,987	10,326	5,137	15,463	N.A.
1972	377	564	1,523	19,810	18,816	9,903	10,615	4,973	15,588	8.9
1973 1/	416	1,025	2,037	21,377	19,998	10,616	11,536	5,073	16,609	12.5
1973 2/	N.A.	N.A.	N.A.	20,506	18,740	9,888	11,166	4,935	16,101	N.A.
1974 1/	519	1,668	2,700	23,696	19,093	11,524	12,958	5,346	18,304	16.8
1974 2/	530	1,754	2,817	26,088	21,856	12,012	13,602	6,457	20,059	16.8
1975	632	1,158	2,377	28,220	24,265	13,773	14,878	7,193	22,071	12.1
1976	660	1,801	2,983	32,010	27,284	15,659	17,203	7,625	24,828	13.2
1977 1/	725	1,502	3,050	34,450	29,545	17,131	18,321	8,551	26,872	12.2
1977 2/	793	1,566	3,229	37,047	31,866	18,590	19,704	9,254	28,958	12.0
1978 1/	877	1,771	3,838	40,810	34,420	20,226	21,181	10,082	31,263	12.5
1978 2/	859	1,739	3,465	40,118	33,563	19,644	20,794	9,900	30,694	12.5
1979	975	2,746	4,642	45,304	37,069	22,318	23,206	11,028	34,234	16.0
1980 1/	1,089	1,957	4,032	50,040	41,403	25,739	25,889	11,850	37,739	11.8
1980 2/	1,050	1,731	3,721	44,866	39,534	24,391	23,873	10,365	34,238	11.6
1980 3/E	1,057	1,743	3,769	45,894	40,361	24,800	24,396	10,585	34,981	11.5
1981 1/	1,161	1,947	4,200	50,706	44,942	27,747	26,452	11,633	38,085	11.7
1981 2/	1,126	1,984	4,251	50,912	45,122	27,881	26,558	11,705	38,263	11.7
1982	1,104	355	2,735	52,915	48,235	29,711	26,705	13,149	39,854	5.5
1983 1/	1,139	1,197	3,842	56,126	51,692	32,208	27,509	13,946	41,455	8.5
1983 2/	1,137	1,191	3,798	54,821	50,957	31,826	27,219	13,565	40,784	8.5
1984	1,217	1,798	4,596	58,520	53,882	34,563	28,160	13,802	41,962	10.7
1985 1/	1,242	1,649	4,756	62,613	60,485	38,881	29,780	15,262	45,042	9.7
1985 2/	1,240	1,640	4,739	62,505	60,341	38,835	29,694	15,262	44,956	9.7
1986 1/	1,361	1,932	5,322	69,132	64,902	42,339	31,254	18,920	50,174	10.5
1986 2/4/	1,356	1,924	5,313	69,082	64,902	42,339	31,221	18,906	50,127	10.5
1987 1/	1,478	3,511	7,338	76,791	70,856	45,898	35,102	20,152	55,254	14.2
1987 2/	1,687	3,833	8,112	85,279	78,495	50,634	39,217	22,417	61,634	14.1
1988 1/	1,700	6,377	10,997	95,295	85,747	55,439	42,933	27,068	70,001	18.8
1988 2/	1,700	6,381	11,006	95,444	85,830	55,520	42,940	27,180	70,120	18.8
1989 1/	3,163	3,836	8,790	107,572	96,336	62,723	45,888	33,193	79,081	15.3
1989 2/	3,183	3,864	8,874	109,038	96,449	62,804	45,642	34,543	80,185	15.4
1990 1/	2,407	2,437	7,972	116,812	104,734	68,096	46,462	39,961	86,423	10.4
1990 2/	2,351	2,530	8,108	117,335	105,489	68,726	45,951	40,720	86,671	10.6
1991 1/	2,275	48	5,839	120,492	110,997	70,693	46,006	43,867	89,873	5.0
1991 2/	2,450	(286)	6,218	130,748	121,850	77,432	48,642	47,436	96,078	4.4

See Page 66 for footnotes

Net Cash Flow = Retained Earnings + Depreciation

Cash Inflow = Net Profit After Taxes + Depreciation

Gross Cash Flow = Net Profit Before Taxes + Depreciation

Total Capital = Net Worth + Long-Term Debt

TABLE XXXA
PRODUCERS PRICE INDEXES
FOR COMMODITY GROUPING AND INDIVIDUAL ITEMS
WOOD PULP, PAPER, PAPERBOARD AND CONVERTED PRODUCTS
1984 - 1991
(Index 1982 = 100)

	1982 BLS Price Codes	1984	1985	1986	1987	1988	1989	1990	1991
PULP, PAPER & ALLIED PRODUCTS	09	110.3	113.3	116.1	121.8	130.4	137.8	141.2	142.9
PULP, PAPER & PRODUCTS, exc. Building Paper & Board	091	107.3	108.9	107.6	114.3	124.9	132.4	132.9	129.8
Wood Pulp Sub-Group	0911	104.8	91.4	94.7	111.5	136.7	157.4	151.3	119.2
Paper Making Wood pulp	091102	106.3	88.2	95.6	120.6	151.6	175.0	162.6	120.1
Sulfate, Bleached	09110211	111.0	89.8	98.1	124.3	155.1	182.5	173.5	132.9
Bleached Sulfate Hardwood Pulp	09110212	111.6	93.3	97.0	115.0	147.8	165.3	147.1	97.8
Other Dec/82	09110223	N.A.	110.6	110.0	116.3	124.5	129.5	115.2	94.7
Dissolving Wood Pulp	091103	97.5	96.7	96.2	98.6	111.4	132.4	136.7	124.8
Waste Paper Sub-Group	0912	198.2	122.9	142.6	181.4	183.6	157.1	138.9	121.4
News	091201	267.8	208.1	191.3	243.9	239.9	124.4	104.2	101.9
Mixed	091202	173.0	147.2	129.0	153.1	168.7	115.3	86.9	64.1
Old Corrugated Boxes	091203	317.8	155.0	238.1	313.3	250.5	180.4	165.6	165.0
High Grade (Pulp substit. & deink.)*	091207	N.A.	N.A.	N.A.	109.6	131.9	136.2	120.0	96.8
Exports*	091208	N.A.	N.A.	N.A.	125.9	128.8	113.9	101.2	91.2
Paper Sub-Group	0913	105.8	106.0	107.0	111.5	123.2	129.6	128.8	126.9
Writing Papers, excluding Newsprint	091301	108.2	107.4	107.9	110.6	123.4	130.5	129.1	124.8
Uncoated groundwood, publ. and printg.	09130111	101.4	103.0	103.3	107.7	115.3	118.7	117.4	117.2
No. 3 clay coated, 2-sides	09130113	110.6	115.6	115.3	116.9	124.2	129.9	130.2	128.6
No. 5 clay coated, 2-sides	09130115	112.1	122.4	116.1	108.3	125.6	129.6	127.0	121.8
Printing Paper, Ctd. 2 Sides, Other Grades	09130116	112.3	118.0	116.4	117.4	126.3	131.7	132.1	130.2
Printing Paper, Ctd. 1 Side	09130117	108.2	110.3	111.2	116.1	126.5	133.5	137.6	138.4
Offset uncoated book paper	09130122	105.7	100.5	101.7	105.3	118.4	125.5	122.6	116.0
Uncoated publ. & prntg. free sheet	09130123	103.2	97.7	98.9	103.9	N.A.	123.2	123.2	121.9
Unwatermarked bond, no. 4 grade	09130131	103.8	101.9	102.1	103.6	117.1	127.9	123.1	119.8
Watermarked bond	09130132				N.A.	128.8	136.5	136.9	137.0
12 lb. form bond, in rolls	09130133				N.A.	123.6	127.4	124.9	106.9
15 lb. form bond, in rolls	09130134	108.0	94.0	93.8	102.4	117.7	121.8	119.2	107.5
Form bond, in rolls, excl. 12- and 15 lb.	09130135	106.6	93.2	96.0	104.3	121.3	124.3	122.4	113.2
Other Bond	09130136	107.7	106.2	107.9	111.2	126.5	138.1	133.5	124.2
Other misc. free sheet, n.e.c.	09130137	112.2	100.9	103.9	110.6	131.6	140.9	138.8	124.6
Cover & text papers	09130148	111.0	112.0	115.5	122.6	131.9	138.7	139.7	138.4
Newsprint	09130261	102.3	105.3	103.3	112.3	127.6	122.5	119.6	120.9
Packaging and industrial converting	091303	105.4	104.3	106.9	116.0	125.7	134.5	135.8	137.7
Wrapping paper, unbleached kraft	09130301				N.A.	155.9	167.8	168.5	168.5
Wrapping paper, excl. unbl. kraft	09130302	105.9	106.6	107.0	109.2	116.0	124.7	131.0	129.6
Shipping sack paper, Unbl. Kraft	09130304	112.5	102.4	102.6	118.0	131.3	143.5	N.A.	N.A.
Bag and sack paper, unbl. kraft	09130307	109.1	104.3	106.5	126.0	137.7	148.2	148.9	148.9
Bag and sack paper, exc. unbl. kraft	09130308	106.2	107.6	108.6	112.0	123.8	130.7	132.4	133.7
Packaging/ind. conv., unbl. kraft	09130311	105.2	102.3	102.7	117.9	132.2	142.8	143.4	146.3
Packaging/ind. conv., exc. unbl. kraft	09130312	103.4	103.2	104.3	109.9	114.0	122.3	122.9	124.1
Glassine, greaseproof and veg. parchment	09130314	111.3	111.7	123.2	131.4	138.3	142.8	142.7	141.8
Tissue paper Jun/83	09130323			N.A.	134.5	143.0	152.2	154.4	153.5
Special industrial paper	091304	105.8	103.7	105.5	108.2	118.3	132.7	132.6	133.7
Paperboard	0914	110.4	107.7	106.6	118.1	133.2	140.1	135.7	130.2
Corrugated paperboard in sheet & rolls	09140551	107.7	109.1	104.6	117.9	130.6	134.3	128.8	123.8
Paperboard, exc. corrugated **	091411	115.8	112.5	111.7	123.7	139.6	147.1	142.6	136.8
Unbleached linerboard **	09141101	122.4	116.5	116.3	135.3	161.3	165.3	155.2	143.6
Bleached pckg. & indus. conv. paperboard**	09141103	107.7	108.1	106.9	107.4	113.3	131.5	135.5	136.8
Semichemical paperboard **	09141104	121.3	112.7	110.0	133.2	150.1	151.9	137.1	120.5
Recycled paperboard **	09141105	109.2	108.5	107.7	114.3	124.1	129.0	128.7	129.0
Converted paper and paperboard products	0915	106.4	108.9	109.4	114.7	123.0	131.7	135.2	134.8
Sanitary paper products, inc. stock.	091501	103.4	106.6	108.1	109.0	115.0	126.0	135.3	136.2
Paper bags and shipping sacks	091502	110.5	111.9	116.9	126.0	141.1	154.0	156.6	154.4
Paper boxes and containers	091503	105.7	108.8	107.8	115.4	123.5	129.8	129.9	128.0
Gummed products	09150431	101.9	103.6	104.2	107.9	114.1	120.4	123.1	123.8
Office supplies and accessories	091506	107.5	106.3	106.1	108.3	114.9	121.6	121.4	119.5
Fiber and composite cans & rel. prod.	091507	110.7	114.7	115.1	117.1	123.5	133.9	147.8	149.8
Pressed and molded pulp goods Jun/85	091508		N.A.	101.3	101.8	103.5	110.6	114.1	117.1
Misc. converted paper and board prod. Dec/84	091509	N.A.	100.4	100.7	103.2	109.1	116.6	117.7	120.6
Pressure sensitive products Dec/82	0916	105.1	107.1	108.2	109.4	115.0	121.4	124.5	129.0
Building paper and building board mill prod	092	108.2	107.4	108.8	111.2	113.3	115.6	112.2	111.8
Publications, printed matter and printing mat.	093	112.7	118.7	123.3	128.1	134.7	142.1	148.4	154.8
All Commodities		103.7	103.2	100.2	102.8	106.9	112.2	116.3	116.5
Industrial Commodities		103.3	103.7	100.0	102.6	106.3	111.6	115.8	116.5

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C.
N.A. - Not Available * Dec. 1986 = 100 ** Dec. 1982 = 100

TABLE XXXB
PRODUCERS PRICE INDEXES
FOR THE NET OUTPUT OF SELECTED INDUSTRIES AND PRODUCTS
PAPER AND ALLIED PRODUCTS
1985 – 1991

	Product Codes	Index Base	1985	1986	1987	1988	1989	1990	1991
PAPER AND ALLIED PRODUCTS 26		12/84	98.8	99.5	104.8	113.7	120.8	121.9	121.1
Pulp mills 2611		12/82	100.9	103.1	117.0	141.7	161.3	153.8	121.8
Primary products	2611-P	12/82	99.8	103.9	122.0	147.5	169.4	162.3	127.3
Special alpha and dissolving woodpulp	2611-1	12/82	99.8	99.2	101.6	114.9	136.6	141.0	128.6
Other pulp, including pulpmill byproducts, except tall oil	2611-2	12/82	99.9	106.2	132.2	163.9	187.0	175.9	132.4
Woodpulp	2611-21	12/82	97.9	105.4	133.3	167.0	191.6	176.3	127.7
Bleached sulfate, hardwood	*2611-21341	12/82	97.1	106.0	134.4	167.6	197.3	187.6	143.7
Bleached sulfate, softwood	*2611-21342	12/82	104.8	109.0	129.2	166.0	185.7	165.2	109.9
Paper mill products except building paper 2621		6/81	109.5	110.4	115.7	127.4	134.6	134.0	131.0
Primary products	2621-P	6/81	109.9	110.9	116.1	127.8	134.6	134.4	131.9
Tissue paper and sanitary paper stock	2621-A	6/81	112.4	115.2	119.0	126.2	135.5	139.8	139.0
Sanitary papers, including stock, made in paper mills	*2621-A4	6/81	112.1	114.4	117.8	124.8	134.1	138.5	137.7
Newsprint	2621-1	6/81	110.1	108.0	117.4	133.0	127.7	124.7	126.0
Groundwood paper, uncoated	2621-2	6/81	108.3	108.7	113.0	120.0	124.6	124.1	125.2
Publication and printing	2621-211	6/81	107.8	108.1	112.7	120.7	124.3	122.9	124.1
Clay coated printing and converting paper	2621-3	6/81	123.6	121.3	121.0	133.6	138.9	137.9	134.4
Coated 2-sides	*2621-36	6/81	123.5	120.9	119.9	132.5	137.5	136.2	132.4
No. 3 coated 2-sides	*2621-363	6/81	122.6	122.7	123.9	131.7	137.6	138.0	136.3
No. 5 Coated 2-sides	*2621-365	6/81	123.9	117.6	109.6	127.2	131.2	126.6	123.3
Coated 2-sides except No.3 and No.5	*2621-366	6/81	123.5	121.7	122.4	131.8	137.5	137.5	135.3
Book paper, uncoated free sheet	2621-4	6/81	100.6	102.1	108.2	123.0	131.6	128.9	121.6
Chemical woodpulp writing paper, except body stock	2621-421	6/81	98.1	99.5	105.7	121.6	130.4	126.8	118.9
Unwatermarked bond, no. 4 grade	2621-42111	6/81	104.3	104.5	106.0	119.8	130.9	126.0	122.6
Watermarked bond	2621-4212	6/81			N.A.	133.6	141.6	142.1	142.2
Form bond in rolls, 15 lb.	2621-42155	6/81	92.8	92.6	101.2	116.2	120.3	117.7	106.1
Publication and printing grade free sheet	2621-441	6/81	102.2	103.3	108.7	119.9	127.7	125.8	121.0
Plain (inc M.F., E.F., supercalendered,egshell and antique gr	2621-44111	12/87				108.3	115.5	117.1	114.5
Offset	2621-44122	6/81	102.9	104.1	107.8	121.3	128.6	125.5	118.8
Cover and text papers	2621-465	6/81	118.6	122.2	129.8	138.6	146.8	147.8	146.5
Unbleached kraft packaging and industrial converting paper	2621-7	6/81	100.2	102.1	118.4	129.9	141.0	142.5	147.0
Wrappping	2621-711	6/81			N.A.	161.8	174.1	174.9	174.9
Shipping Sack	2621-731	6/81	97.7	97.9	112.6	125.3	136.9	N.A.	N.A.
Bag and sack, other than shipping sack	2621-751	6/81	96.3	97.9	115.7	126.5	136.2	136.8	136.8
Other unbleached kraft packaging and industrial converting pa	2621-761	6/81	102.0	102.4	117.7	131.9	142.5	143.1	145.9
Packaging and industrial converting paper, except unbl. kraft	2621-8	6/81	111.1	115.6	121.5	128.1	135.4	136.1	136.5
Wrapping	2621-811	6/81	111.9	112.3	114.6	121.7	130.9	137.5	136.0
Bag and sack, other than shipping sack	2621-851	6/81	109.2	110.2	113.7	125.7	132.6	134.4	135.7
Other packaging and industrial converting, except unbl. kraft	2621-861	6/81	104.0	105.1	110.8	115.0	123.3	123.9	125.1
Glassine, greaseproof, and vegetable parchment	2621-881	6/81	115.2	127.0	135.5	142.6	147.2	147.2	146.2
Special industrial paper	2621-9	6/81	108.1	109.9	112.8	123.3	138.3	138.2	139.4
Paperboard mills 2631		12/82	112.0	113.1	126.5	141.6	149.9	146.0	140.7
Primary products	2631-P	12/82	112.2	111.3	123.1	138.9	148.2	141.7	136.0
Unbleached kraft Packaging and industral converting paperboar	2631-1	12/82	116.3	115.6	133.4	157.3	162.0	153.5	143.2
Unbleached Linerboard	2631-111	12/82	116.5	116.3	135.2	161.3	165.3	155.3	143.6
42 lb. kraft linerboard	2631-11101	12/82	119.9	117.9	138.3	159.8	163.8	154.4	142.8
Other unbleached linerboard	2631-11102	12/82	114.6	115.4	133.5	162.1	166.0	155.0	143.5
Bleached packaging and industrial converting paperboard	2631-2	12/82	108.1	106.9	107.4	113.3	131.5	135.5	136.8
Linerboard	2631-211	12/82	111.4	111.7	118.8	N.A.	134.1	128.2	121.3
Folding carton-type board	2631-241	12/82	105.9	104.1	105.5	111.6	128.2	133.6	136.5
Bleached paperboard for moist, liquid or oily foods	2631-26	12/88				N.A.	111.5	114.1	114.5
Corrugating medium (semichemical)	2631-321	12/82	112.7	110.0	133.2	150.1	151.9	137.1	120.5
Recycled paperboard	2631-4	12/82	108.5	107.7	114.3	124.1	129.0	128.6	129.0
Linerboard (less than 80% virgin fiber)	2631-411	12/82	110.6	107.1	125.6	141.1	143.6	137.5	134.7
Container chip and filler board	2631-431	12/82	108.9	108.7	117.8	128.1	130.7	130.7	131.5
Folding carton board	2631-44	12/88				N.A.	104.4	109.9	114.0
Unlined chipboard	2631-443	12/82	N.A.	110.7	111.5	N.A.	121.1	124.3	123.2
Kraft-lined folding carton board	2631-444	02/83				N.A.	124.8	125.3	125.5
White-lined folding carton board	2631-445	12/82	107.9	106.7	106.7	116.2	120.6	120.8	120.8
Clay-coated folding carton board	2631-446	12/82	98.6	98.1	99.4	104.9	114.7	123.6	131.4
Other recycled paperboard	2631-48	12/82	112.8	112.9	116.6	N.A.	100.9	101.9	103.4
Paper coating and glazing 2641		12/82	108.5	110.0	112.7	119.0	126.0	129.4	132.8
Bags, except textile bags 2643		12/83	108.5	112.3	120.0	135.4	148.3	150.2	N.A.
Paperboard containers and Boxes 265		12/84	98.4	97.3	104.2	111.7	117.2	117.7	116.6

SOURCE: Annual Supplement to Producer Prices and Price Indexes, Table 3, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C.
N.A. – Not Available * Codes changed to 1988 categories

TABLE XXXI

GENERAL STATISTICS FOR THE PAPER AND ALLIED PRODUCTS INDUSTRY

1990

CODE	INDUSTRY GROUP & INDUSTRY	All Employees		Production Workers			Value Added by Manufacture	Cost of Materials	Value of Industry Shipments	New Capital Expenditures
		Number (000)	Payroll ($ Mil.)	Number (000)	Man-Hours (Mil.)	Wages ($ Mil)	($ Mil)	($ Mil)	($ Mil)	($ Mil)
26	PAPER AND ALLIED PRODUCTS	628.1	18,945.7	479.8	1,009.2	13,045.1	59,823.3	71,878.9	131,444.6	10,809.2
2611	Pulp Mills	16.1	668.0	12.3	27.7	484.3	3,416.4	2,885.3	6,239.1	1,053.6
2621	Paper Mills, exc. Bldg. Paper	130.1	5,061.5	98.6	210.6	3,670.6	16,599.8	18,861.1	35,321.8	4,277.5
2631	Paperboard Mills	53.1	2,048.7	40.7	90.5	1,487.7	8,123.0	7,804.8	15,919.3	2,976.6
265	Paperboard Containers and Boxes	200.3	5,244.6	153.4	319.3	3,391.4	11,082.1	19,414.2	30,510.4	997.9
2652	Setup Paperboard Boxes	8.8	145.9	7.5	14.6	101.8	312.9	259.0	565.1	14.4
2653	Corrugated, and Solid fiber Boxes	110.1	2,983.7	80.0	168.0	1,797.5	5,901.9	12,655.7	18,572.2	606.5
2655	Fiber Cans,Drums,Similar Prod.	13.3	341.3	11.1	22.9	247.7	750.6	1,134.9	1,884.9	45.8
2656	Sanitary Food Containers	17.5	392.3	14.3	28.0	289.2	1,074.4	1,454.7	2,518.7	51.4
2657	Folding Paperboard Boxes	50.7	1,381.5	40.6	85.9	955.2	3,042.4	3,910.0	6,969.4	279.8
267	Misc.Converted Paper Products	228.5	5,922.9	174.8	361.1	4,011.0	20,602.0	22,913.5	43,454.0	1,503.5
2671	Paper Coated and Laminated.Pkg.	16.4	488.5	11.4	23.8	299.7	1,133.4	1,899.1	3,026.7	101.4
2672	Paper Coated and laminated,n.e.c.	35.0	985.4	23.5	48.2	577.4	3,321.0	3,736.4	7,077.8	290.8
2673	Bags:Plastics,Laminated & Coated	37.4	869.9	30.0	63.7	611.7	2,625.1	2,870.3	5,494.6	213.1
2674	Bags:Uncoated Paper & Multiwall	16.9	374.3	14.3	29.0	282.3	877.1	1,881.8	2,750.1	63.8
2675	Die-cut Paper & Board	16.8	395.4	13.5	27.0	253.8	1,045.7	1,068.8	2,119.0	44.1
2676	Sanitary Paper Products	39.0	1,299.2	31.0	65.3	986.7	7,896.2	6,887.4	14,709.2	526.2
2677	Envelopes	26.1	648.4	20.3	42.4	432.6	1,194.9	1,620.6	2,816.6	66.8
2678	Stationery Products	10.1	202.6	7.6	14.6	132.2	577.9	751.2	1,332.1	42.1
2679	Converted Paper Products,n.e.c.	30.7	659.2	23.2	47.0	434.6	1,930.7	2,197.9	4,127.9	155.2

1989

CODE	INDUSTRY GROUP & INDUSTRY	All Employees		Production Workers			Value Added by Manufacture	Cost of Materials	Value of Industry Shipments	New Capital Expenditures
		Number (000)	Payroll ($ Mil.)	Number (000)	Man-Hours (Mil.)	Wages ($ Mil)	($ Mil)	($ Mil)	($ Mil)	($ Mil)
26	PAPER AND ALLIED PRODUCTS	629.5	18,397.0	483.9	1,013.2	12,813.8	61,208.1	70,781.0	131,366.4	10,067.2
2611	Pulp Mills	15.2	602.6	11.7	25.4	442.8	3,938.6	2,547.5	6,418.1	696.8
2621	Paper Mills, exc. Bldg. Paper	130.1	4,927.1	100.6	214.0	3,629.4	17,100.6	18,481.0	35,387.1	5,238.6
2631	Paperboard Mills	52.1	1,958.3	40.3	89.2	1,450.4	8,798.6	7,563.6	16,319.3	1,053.3
265	Paperboard Containers and Boxes	202.1	5,144.0	155.4	322.4	3,363.0	10,970.9	19,666.2	30,481.4	965.2
2652	Setup Paperboard Boxes	8.7	141.2	7.3	14.1	96.1	293.6	243.0	531.1	12.2
2653	Corrugated, and Solid fiber Boxes	111.1	2,927.6	81.3	170.4	1,783.5	5,813.9	13,056.9	18,862.3	606.1
2655	Fiber Cans,Drums,Similar Prod.	13.3	328.9	11.1	23.6	239.0	730.9	1,101.0	1,829.0	38.3
2656	Sanitary Food Containers	17.2	382.5	14.5	28.1	295.0	1,052.2	1,511.6	2,543.8	64.4
2657	Folding Paperboard Boxes	51.8	1,363.8	41.2	86.2	949.4	3,080.3	3,753.7	6,715.2	244.2
267	Misc.Converted Paper Products	230.0	5,765.0	175.9	362.3	3,928.2	20,399.4	22,522.7	42,762.4	1,515.3
2671	Paper Coated and Laminated.Pkg.	16.3	458.3	11.3	23.7	285.6	1,094.6	1,845.9	2,938.8	113.9
2672	Paper Coated and laminated,n.e.c.	35.9	973.0	24.5	51.4	597.3	3,419.3	3,731.1	7,145.1	217.1
2673	Bags:Plastics,Laminated & Coated	39.0	882.1	31.4	65.6	621.3	2,682.7	3,024.3	5,[illegible]	219.2
2674	Bags:Uncoated Paper & Multiwall	17.0	357.7	14.4	28.7	270.8	910.1	1,899.8	2,787.2	53.5
2675	Die-cut Paper & Board	16.1	384.0	12.8	26.5	252.4	989.6	1,019.9	1,984.2	68.8
2676	Sanitary Paper Products	37.8	1,234.8	29.6	61.9	925.2	7,741.0	6,627.1	14,332.2	630.2
2677	Envelopes	27.3	644.8	21.1	43.3	431.9	1,246.9	1,578.3	2,816.0	75.5
2678	Stationery Products	10.5	202.9	8.0	15.5	130.6	568.9	749.8	1,316.1	38.4
2679	Converted Paper Products,n.e.c.	30.1	627.4	22.8	45.6	413.3	1,748.3	2,046.5	3,796.4	98.7

Source: Department of Commerce, Bureau of the Census: 1989 Annual Survey of Manufactures.

SECTION V

SUPPLEMENT

Tables XXXII and XXXIII present data on production, imports, exports and new supply of wet machine board and total construction paper and paperboard, for the years 1950 through 1991. The production data for 1982-1991 are API estimates; the other data are drawn from Bureau of the Census reports.

Table XXXIV show the data on imports of paper and paperboard, taken from sources other than the Bureau of the Census, used in computing some of the new supply totals presented in Table VIII.

Census overstates newsprint and understates groundwood paper imports. The figures shown in Table XXXIV replace the Census data on imports of these grades from Canada with reports from the Canadian Pulp and Paper Association on shipments of newsprint and ground papers from Canada to the United States. Newsprint new supply, calculated from these revised imports, are consistent with data on total consumption of newsprint as published by CPPA.

The data on imports of the other printing papers are currently drawn from Census reports, and are included here for completion.

Table XXXV reports the export data used in calculating pa[illegible]board new supply. The data on kraft and semichemical paperboard are the production for export figures reported by API's Containerboard and Kraft Paper Group, while the bleached board and recycled numbers come from similar reports by the API's Paperboard Group.

New supply of the other paper grades, and construction and wet machine board, are calculated from Census data. The Census data are shown in Tables XI and XII.

Table XXXVI summarizes the current status and recent trends of the paper and allied products industry.

This section also includes an index to this report.

TABLE XXXII

WET MACHINE BOARD PRODUCTION, IMPORTS, EXPORTS AND CONSUMPTION

CENSUS DATA

1950 - 1991

(In Tons of 2,000 Pounds)

YEAR	Production	Imports	Exports	New Supply
1950	164,611	2,136	3,266	163,481
1951	150,559	3,144	3,876	149,827
1952	140,175	2,242	3,318	139,099
1953	156,496	2,872	3,698	155,670
1954	135,910	3,349	3,420	135,839
1955	178,687	4,211	3,727	179,171
1956	146,589	3,492	3,998	146,083
1957	137,998	3,289	4,188	137,099
1958	121,103	4,566	3,884	121,785
1959	144,807	5,214	3,566	146,455
1960	174,992	4,517	2,791	176,718
1961	155,205	3,668	3,516	155,357
1962	145,625	4,905	5,312	145,218
1963	140,669	2,925	4,412	139,182
1964	147,880	10,403	4,884	153,399
1965	143,872	10,306	4,139	150,039
1966	148,098	5,537	4,811	148,824
1967	143,984	8,636	5,218	147,402
1968	154,794	11,146	4,318	161,622
1969	147,671	9,073	3,842	152,902
1970	139,055	9,308	4,614	143,749
1971	137,825	6,198	4,383	139,640
1972	147,914	4,204	5,642	146,476
1973	148,892	6,883	7,495	148,280
1974	143,862	5,899	11,287	138,474
1975	115,169	3,814	6,136	112,847
1976	129,955	6,988	6,617	130,326
1977	128,627	3,608	8,051	124,184
1978	136,337	2,614	7,554	131,397
1979	144,059	2,345	7,371	139,033
1980	137,649	2,118	8,017	131,750
1981	160,293	1,684	10,812	151,165
1982	129,000 E	1,842	11,089	120,000 E
1983	140,000 E	3,584	11,624	132,000 E
1984	140,000 E	2,826	13,782	129,000 E
1985	130,000 E	3,270	13,380	120,000 E
1986	130,000 E	3,235	18,893	114,000 E
1987	120,000 E	3,463	17,328	106,000 E
1988	100,000 E	4,239	11,691	93,000 E
1989	100,000 E	606	2,889	97,800 E
1990	100,000 E	1,132	487	101,000 E
1991	100,000 E	930	955	100,000 E

SOURCE: Production - Department of Commerce, Bureau of the Census, Industry Division; Current Industrial Reports: Pulp, Paper and Board, Annual Issues.
Imports and Exports - Foreign Trade Division, Department of Commerce.
E - Estimated by American Paper Institute.

TABLE XXXIII

CONSTRUCTION PAPER AND BOARD PRODUCTION, IMPORTS, EXPORTS AND CONSUMPTION

CENSUS DATA

1950 - 1991

(In Tons of 2,000 Pounds)

YEAR	Production	Imports	Exports	New Supply
1950	2,263,617	30,677	24,019	2,270,275
1951	2,303,538	29,057	30,223	2,302,372
1952	2,197,763	27,545	24,343	2,20[illegible]965
1953	2,322,275	26,177	25,871	2,322,581
1954	2,436,002	21,228	28,355	2,428,875
1955	2,698,344	28,944	30,580	2,696,708
1956	2,530,407	29,429	33,650	2,526,186
1957	2,317,701	19,040	31,800	2,304,941
1958	2,446,375	23,073	25,613	2,433,825
1959	2,605,831	27,698	28,250	2,606,279
1960	2,507,763	18,090	28,137	2,497,716
1961	2,474,304	11,168	31,430	2,454,042
1962	2,508,987	16,076	27,187	2,497,876
1963	2,591,639	28,851	26,304	2,594,186
1964	2,747,582	44,359	28,539	2,763,402
1965	2,822,203	29,471	29,463	2,822,211
1966	2,649,808	25,945	33,720	2,642,033
1967	2,679,398	26,591	26,539	2,679,150
1968	2,906,986	28,856	33,957	2,911,885
1969	2,955,112	39,362	42,837	2,951,637
1970	2,812,345	48,875	32,843	2,828,377
1971	3,282,908	81,262	37,673	3,326,497
1972	3,444,014	104,385	44,335	3,504,064
1973	3,404,880	105,558	54,385	3,456,053
1974	3,140,084	88,701	66,242	3,162,543
1975	2,864,353	84,363	59,575	2,889,141
1976	3,205,761	93,155	62,006	3,236,910
1977	3,255,141	135,274	50,270	3,340,145
1978	3,339,792	329,594	63,850	3,605,536
1979	3,130,601	382,883	54,642	3,458,842
1980	2,420,112	473,679	57,662	2,836,129
1981	1,989,203	396,496	68,832	2,316,867
1982	1,533,000 E	419,515	47,833	1,905,000 E
1983	1,660,000 E	473,667	55,746	2,078,000 E
1984	1,660,000 E	496,830	63,890	2,093,000 E
1985	1,570,000 E	413,196	55,429	1,927,800 E
1986	1,470,000 E	336,409	75,149	1,731,000 E
1987	1,470,000 E	305,985	90,024	1,686,000 E
1988	1,400,000 E	318,206	120,185	1,598,000 E,
1989	1,470,000 E	189,119	33,388	1,626,000 E
1990	1,470,000 E	140,110	9,384	1,601,000 E
1991	1,470,000 E	92,797	19,258	1,544,000 E

SOURCE: Production - Department of Commerce, Bureau of the Census, Industry Division; Current Industrial Reports: Pulp, Paper and Board, Annual Issues.
Imports and Exports - Foreign Trade [illegible]vision, Department of Commerce.
E - Estimated by American Paper Ins[illegible]e. C - Corrected

TABLE XXXIV

IMPORTS

1960 - 1991

(000 Tons)

YEAR	Newsprint	Uncoated Groundwood Papers	Coated Papers	Uncoated Free Sheet Papers	Thin Papers	Bleached Bristols	Total Printing/ Writing
1960	5,426	39.5	0	1.8	3	0.5	44.8
1961	5,382	35.9	0	3.4	3	0.5	42.8
1962	5,415	41.5	0	3.8	3	0.4	48.7
1963	5,398	77.2	0	5.3	3	0.5	53.0
1964	5,908	70.6	0	11.2	7	0.5	89.3
1965	6,349	98.1	0.9	10.7	9	0.4	119.1
1966	6,884	132.9	0.9	14.2	11	0.3	159.3
1967	6,546	147.5	1.4	34.7	13	0.5	197.1
1968	6,391	136.8	1.3	13.4	12	0.3	163.8
1969	6,724	216.9	3.3	15.4	10	0.4	246.0
1970	6,477	232.9	3.5	48.9	8	0.4	293.7
1971	6,463	244.2	4.7	108.5	7	0.5	364.9
1972	6,758	225.1	4.5	93.3	6	0.5	329.4
1973	7,236	237.1	12.3	120.2	15	1.0	385.6
1974	7,452	321.3	16.3	138.9	18	3.5	498.0
1975	5,522	264.0	4.7	86.9	9	0.7	374.3
1976	6,308	338.1	15.5	133.9	12	0.6	500.1
1977	6,339	443.2	111.6	155.3	13	17.0 #	740.1
1978	7,102	610.7	213.7	112.7	7.3	15.9	959.7
1979	7,168	694.5	188.7	141.7	14.9	16.2	1,053.8
1980	6,880	688.1	114.8	119.0	6.3	14.2	941.3
1981	6,721 R	650.0	39.0	119.5	12.0	7.9	827.5
1982	6,202	665.1	69.1	157.0	11.3	14.6	917.1
1983	6,651	991.8	162.4	222.8	20.3	19.7	1,417.0
1984	7,378	1,393.4	428.4	459.0	46.4	24.1	2,351.3
1985	7,635	1,475.7	496.2	379.3	23.7	22.5	2,397.4
1986	7,686	1,595.1	501.2	476.2	45.4	28.3	2,646.2
1987	8,189	1,753.2	674.4	433.0	47.6	28.0	2,936.2
1988	8,007 R	1,911.8	797.7	616.1	55.8	51.5	3,432.9
1989	7,664	1,873.3	774.0	583.4	12.7	59.1	3,302.5
1990	7,261	1,982.1	936.0	752.4	14.3	67.4	3,752.3
1991	6,411	1,953.0	794.1	674.9	14.6	82.0	3,518.7

SOURCE: Newsprint - Canadian Shipments to U.S., CPPA; Other Country Imports to U.S., U.S. Bureau of Census
Uncoated Groundwood - Imports from Canada, CPPA;
Imports from other countries, Bureau of the Census, adjusted by Printing/Writing Division of API.
Uncoated Free Sheet Papers - Bureau of the Census, adjusted by Printing/Writing Division of API.
Coated Papers - Bureau of the Census.

NOTE: Imports used to compute new supply for Table VIII.
Series revised to include cut size paper.
R - Revised.

TABLE XXXV

EXPORTS

1960 - 1991

(000 Tons)

YEAR	Uncoated Groundwood Papers	Coated Papers	Uncoated Free Sheet Papers	Thin* Papers	Cotton Fiber Papers	Bleached Bristols	Total Printing/ Writing	Unbleached Kraft Paperboard	Semichem. Paperboard	Bleached Paperboard	Recycled Paperboard
1960	8.6	26.1	38.2	15.0		0.8	88.7	381.0	31.0	23.0	46.0
1961	10.2	21.7	34.6	15.0		0.9	82.4	407.0	62.0	32.0	60.0
1962	9.1	24.3	31.3	15.0		1.3	81.0	445.0	44.0	33.0	55.0
1963	11.1	27.1	30.1	14.0		1.7	84.0	517.0	83.0	39.0	53.0
1964	13.1	36.6	34.4	16.0		1.9	102.0	765.0	107.0	45.0	71.0
1965	3.2	48.5	29.0	29.0		0.0	109.7	905.0	55.0	47.0	32.0
1966	3.8	45.[illegible]	30.6	32.0		0.0	116.0	1,016.0	64.0	59.0	27.0
1967	4.4	46.8	27.3	31.0		0.0	109.5	1,174.0	76.0	61.0	23.0
1968	7.9	57.1	31.9	47.0		0.0	143.9	1,380.7	94.0	108.5	12.9
1969	6.1	70.0	35.3	56.0		0.0	167.4	1,682.8	52.4	108.1	16.8
1970	7.3	75.2	41.3	58.0		0.0	181.8	1,683.4	84.3	114.4	17.3
1971	9.9	72.2	46.2	74.0		0.0	202.3	1,834.3	104.0	156.5	20.6
1972	17.6	76.2	50.6	68.0		0.0	212.4	1,887.5	111.7	217.8	14.4
1973	29.7	80.6	65.0	87.0		0.0	262.3	1,596.7	107.4	280.3	30.8
1974	53.3	98.8	100.4	106.0		0.0	358.5	1,582.7	145.5	320.2	101.0
1975	74.7	122.8	119.8	80.0		0.0	397.3	1,058.0	115.4	256.2	23.8
1976	70.6	106.7	147.3	102.0		0.0	426.6	1,247.3	119.3	306.1	36.5
1977	54.1	98.9	111.4	76.0		0.0	340.4	1,289.6	121.9	389.4	29.5
1978	58.1	73.7	84.9	26.5	12.2	10.7	266.4	1,466.3	119.2	432.9	21.5
1979	80.4	73.5	68.1	32.4	10.9	9.2	274.2	1,645.9	98.2	496.7	21.8
1980	101.0	92.8	88.3	33.8	16.6	8.8	341.3	2,379.9	322.3	549.6	82.6
1981	119.7	88.6	116.7	42.7	9.2	6.4	383.3	1,886.5	155.2	556.4	23.8
1982	55.9	81.4	70.6	27.7	6.6	4.4	246.6	1,931.5	184.9	524.7	12.7
1983	37.5	79.2	59.3	17.6	4.8	3.7	202.1	2,280.7	192.6	514.4	24.3
1984	30.2	85.6	65.5	14.0	5.0	3.0	203.3	2,086.4	149.2	478.3	17.4
1985	36.7	82.5	64.4	13.3	4.3	1.4	202.6	1,830.0	189.4	465.6	26.3
1986	40.9	78.0	50.0	14.5	4.5	2.4	190.3	2,236.6	212.5	568.7	70.2
1987	55.7	100.7	67.9	18.4	4.1	2.1	248.9	2,302.8	192.5	618.9	75.4
1988	70.0	97.2	82.7	28.1	6.0	2.6	286.6	2,295.7	136.3	627.7	72.0
1989	88.0	168.4	122.6	51.8	0.7	46.8	478.3	2,363.0	137.6	693.4	38.0
1990	75.3	218.7	231.9 R	62.9	0.4	75.2	664.3 R	2,690.7	142.5	732.5	49.3
1991	116.6	276.9	356.5	90.8	0.4	91.1	932.2	3,322.7	170.2	743.2	79.7

SOURCE: Paper Grades - Bureau of the Census; Printing/Writing Paper Division compilation.
Paperboard Grades - 1960 - 1967, Bureau of the Census; 1968 - 1991, API (See Table VII).

NOTE: Exports used to compute new supply for Table VIII.
R - Revised.
* - Includes Cotton Fiber Papers, 1960-1977.

TABLE XXXVI
THE PAPER AND ALLIED PRODUCTS INDUSTRY
IN THE UNITED STATES

Value of Shipments ($ Billion) - 1991	$124.4
Percent of All Manufacturing Shipments - 1991	4.4%
Percent of GNP - 1989	0.9%
Exports (Million Tons) - 1991	21.4
Exports ($ Billion) - 1991	$9.7
Value of Exports as Percent of Total U.S. Merchandise Exports - 1991	2.3%
After Tax Profits ($ Billion) - 1991	$2.2
After Tax Profits as Percent of Sales - 1991	1.8%
Capital Investment ($ Billion) - 1981 - 1991	$97.7
Of Which Pollution Abatement	$6.1
Percent Growth Capital Investment - 1981 - 1991	112.6%
Capital Invested Per Employee ($ 000) 1991	$102.7
Capital Expenditures as Percent of Sales - 1981 - 1991	10.5%
Paper and Paperboard Production (Million Tons) - 1991	79.5
Paper & Paperboard Capacity (Million Tons) - 1991	87.0
Percent of World Capacity - 1990	29.7%
Percent of U.S. Capacity That Is Less Than 10 Years Old - 1990	58%
Number of Paper and Paperboard Mills - 1990	544
Number of States with Wood Pulp, Paper or Paperboard Mills	42
Number of Employees (000) - 1991	688
Employee Costs ($ Billion) - 1991	$28.4
Output Per Employee-hour at Wood Pulp, Paper and and Paperboard Mills: Percent Change - 1981 - 1991	41.0%
Recovered Paper Consumption (Million Tons) - 1991	23.5
Recovered Paper Recovery Rate - 1991	36.6%
Paper and Paperboard Mills:	
Recovered Paper Consumed as Percent of Production - 1991	29.0%
Secondary Fibers Consumed as Percent of Total Fibers - 1991	54.8%
Pulp, Paper and Paperboard Mills - 1991	
Energy Consumption (Quadrillion BTU's)	2.55
Of Which Percent Self-Generated & Residue Fuels	56.2%
Percent of Total U.S. Energy Consumption	3.0%

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